

1. Identification of the substance or mixture and of the supplier		
GHS product identifier: Stock Number: Product Name:	12175300 H-50	
Other means of identification: Chemical family:	Modified starch	
Recommendations and restrictions on u Recommended use:	use of the substance or mixture: Food products	
Restrictions on use:	Not Available	
Supplier's details (i.e. name, address, phone number(s)):	Ingredion (Thailand) Co., Ltd 40/14 Moo 12, Bangna-Trad Road, Bangplee, Samutprakarn 10540 Thailand Tel: +662-725-0200 (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 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

Classification of the chemical in accordance with system of Hazardous Substances B.E. 2555:



GHS Hazard Symbols:	No hazard symbols required
GHS Classification of the substance or mixture, and national or regional information:	Hazardous to the aquatic environment - Acute Category 3
Signal Word:	No Signal Word needed.
Hazard Statements:	Harmful to aquatic life.
Precautionary Statements:	
Prevention:	Avoid release to the environment.
Disposal:	Dispose of contents/container to a suitable disposal site in accordance with local/national/international regulations.
Other hazards which do not result in GHS classification:	None known.

3. Composition/information on ingredients

Substance:

Not applicable

Mixture:

Chemical Name	CAS Number	Concentration (% by weight)
No hazardous components.		

4. First-aid measures

Description of necessary first-aid measures divided by relevant routes of exposure i.e. inhalation, skin, eye, and ingestion:

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/effects, acute and delayed:	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

Suitable (and unsuitable) extinguishing media:

H-50

Suitable extinguishing media:	Dry Chemical, CO2, Water Fog, Foam
Unsuitable extinguishing media:	None known.
Specific hazards arising from the chemical e.g. hazardous combustion products that form when the substance or mixture burns:	Minimum ignition temperature of dust cloud- approx. 390 C. Minimum explosive concentration- approx. 70 mg/l. Minimum energy to ignite cloud by electrical spark- approx. 0.06 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.

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment as required.
Environmental precautions:	Not 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.

7. Handling and storage

6. Accidental release measures

Precaution for safe handling and storage:	As with all chemicals, good industrial hygiene practices should be followed when handling this material.
Conditions for safe storage, including a Safe storage conditions:	ny incompatibilities: 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



8. Exposure controls/personal protection

Control parameters e.g. occupational exposure limit values, biological limit values:

	Thailand - Occupational	Thailand - Occupational	Thailand - Occupational
Chemical Name	Exposure Limits -	Exposure Limits -	Exposure Limits -
	TWA's	STEL's	CEIL's
No data available			

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

Appropriate engineering controls: General.

Individual protection measures e.g. personal protective equipment:

Respiratory Protection:	NIOSH approved dust mask.
Eye 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.

9. Physical and chemical properties

Appearance (physical state, color etc.):		
Pure Substance or Mixture:	Mixture	
Physical State:	Powder	
Color:	White	
Odor:	Starch	
Odor 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	



H-50

Lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	1.5
Solubility:	Soluble in water
Partition coefficient: n-octanol/water:	Not available
Heat of Decomposition:	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 of the likely routes of exposure:	Ingestion, Inhalation, Skin Contact, Eye Contact
Target Organs Potentially Affected By Exposure:	Not applicable.
Symptoms related to physical, chemical and toxicological characteristics:	No data available
Toxic Effects:	This product is considered as being non-toxic. Use of good industrial hygiene practices is recommended.
Delayed and immediate effects and also	o chronic effects from short- and long-term exposure:
Acute toxicity:	
Ingestion Toxicity:	Based on available data, the GHS classification criteria are not met.



H-50

Aguta taxiaity Dormal:	Pasad on available data, the CHS classification criteria are not mat
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:	No.
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

Toxicity (aquatic and terrestrial): No information available.

Ecological Toxicity Data:

Chemical Name	CAS Number	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 on waste residue and safety transfer method, including appropriate disposal methods of waste residues and contaminated packaging:

H-50

Disposal should be in accordance with local, state or national legislation.

14. Transport information

UN Transport classification: UN Number: Proper shipping name or technical name:	Not regulated Not applicable Not applicable
Transport hazard class:	Not applicable
Packing group: Toxic Inhalation Hazard Zone:	Not applicable No data available
Environmental hazards (e.g., Marine pollutant (Yes/No)):	No data available
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	No data available
Special precautions for users, which a user needs to be aware of or needs to comply with in connection with transport either inside or outside the business site:	Consult IMO regulations before transporting in bulk by ocean.

15. Regulatory information

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

Thailand - Toxic Chemical Substance List

Chemical Name	CAS Number	Thailand - Toxic Chemical Substance List
No data available		

Thailand - Priority Management Chemical List



Chemical Name	CAS Number	Thailand - Priority Management Chemical List
No data available		

Thailand - Thailand Explosive Substance and Precursors

H-50

Chemical Name	CAS Number	Thailand - Thailand Explosive Substance and Precursors
No data available		

Montreal Protocol on Substances that Deplete the Ozone Layer,

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

Stockholm Convention on Persistent Organic Pollutants

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

16. Other information, including date of preparation or last revision.

Revision Date:	08-04-2023
Supercedes:	12-22-2022
Revision Number:	6
Reason for revision:	New
For Information Contact	Thailand:



Ingredion (Thailand) Co., Ltd Customer Service: +66-2-725-0200

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.