



***** MATERIAL SAFETY DATA SHEET *****

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER	62-3007
PRODUCT NAME:	VITESSENCE(TM) Pulse CT 3602 protein
Manufacturer	National Starch & Chemical Industrial Ltda Rua Adolfo Konder, 725 Trombudo Central - SC - Brasil CEP 89176-000 Emergency Telephone: 55 47 544 8000

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Possible dust explosion in air.
Possible physical irritant from dust particles. Potential for dust explosion.
Light yellow Powder. Characteristic odor

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

CHEMICAL FAMILY	Protein		
COMPONENT	CAS NUMBER	CONCENTRATION (% by weight)	
None classified as hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).			

4. FIRST-AID MEASURES

EYE	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.

INHALATION	Remove to fresh air. Get medical attention if irritation persists.
INGESTION	None required.

5. FIREFIGHTING MEASURES

AUTOIGNITION	Not available
FLASH POINT	Not available
EXTINGUISHING MEDIA	Dry Chemical; CO2; Water Fog; Foam
SPECIAL FIREFIGHTING PROCEDURES	No special procedures are required.
FIRE & EXPLOSION HAZARDS	Dust may be explosive if mixed with air in critical proportions and in the presence of a source of ignition.
HAZARDOUS COMBUSTION PRODUCTS	This product does not undergo spontaneous decomposition. Typical combustion products are carbon monoxide, carbon dioxide, nitrogen and water.
LOWER EXPLOSION LIMIT (%)	Not available
UPPER EXPLOSION LIMIT (%)	Not available

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES	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.
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For safety and environmental precautions, please review entire Material Safety Data Sheet for necessary information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE	Ambient.
SENSITIVITY TO STATIC ELECTRICITY	Yes
SPECIAL SENSITIVITY	Not available
SENSITIVITY TO MECHANICAL IMPACT	No
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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

	<u>ACGIH</u>	<u>OSHA</u>	<u>Mfg Working Standard</u>
No data available	.		

VENTILATION REQUIREMENTS	General.
EYE PROTECTION REQUIREMENTS	Safety glasses recommended.
GLOVE REQUIREMENTS	Gloves are not normally required for foreseeable conditions of use.
CLOTHING REQUIREMENTS	Not applicable.
CHANGE/REMOVAL OF CLOTHING	Not normally required.

WASH REQUIREMENTS	Wash before eating, drinking, or using toilet facilities.
RESPIRATOR REQUIREMENTS	NIOSH approved dust mask.

9. PHYSICAL AND CHEMICAL PROPERTIES

PURE SUBSTANCE OR MIXTURE	Mixture
PHYSICAL FORM	Powder.
COLOR	Light yellow
ODOR	Characteristic
ODOR THRESHOLD	Not available
MOLECULAR WEIGHT	> 10000
PH AS IS	Not available
pH IN (1%) SOLUTION	Approximately 6.5
OXIDIZING PROPERTIES	Not applicable
BOILING POINT	Not available
MELTING/FREEZING POINT	Not available
SOLUBILITY IN WATER	Slightly Soluble
PARTITION COEFFICIENT (n-octanol/water)	Not available
VISCOSITY	Not applicable
SPECIFIC GRAVITY (WATER=1)	0.72
EVAPORATION RATE	Not available
VAPOR PRESSURE (mmHg)	Not available
VAPOR DENSITY (air = 1)	Not available
VOLATILES	None
VOLATILE ORGANIC COMPOUNDS	Not applicable
AUTOIGNITION	Not available
FLASH POINT	Not available

10. STABILITY AND REACTIVITY

STABILITY	Stable
STABILITY DETAIL	Material is stable under normal temperatures and pressures.
MATERIALS TO AVOID	None known
CONDITIONS TO AVOID	None known
HAZARDOUS DECOMPOSITION PRODUCTS	This product does not undergo spontaneous decomposition. Typical combustion products are carbon monoxide, carbon dioxide, nitrogen and water.
HAZARDOUS POLYMERIZATION CONDITIONS	Hazardous polymerization will not occur.
REACTIVITY	Not expected to be reactive

11. TOXICOLOGICAL INFORMATION

ROUTE OF ENTRY	Eye Contact; Skin Contact; Inhalation; Ingestion		
CARCINOGEN	<u>IARC(group)</u>	<u>NTP</u>	<u>OSHA SubstanceSpecific Regulation</u>
COMPONENT			

There is no evidence that this product poses a carcinogenic risk under normal conditions of handling and use.

PRODUCT TOXICOLOGY

PRODUCT INFORMATION No data available

ACUTE (SHORT TERM) EFFECTS OF EXPOSURE

EFFECTS OF ACUTE EXPOSURE Unlikely to cause harmful effects under recommended conditions of handling and use.

CHRONIC (LONG TERM) EFFECTS OF EXPOSURE

EFFECTS OF CHRONIC EXPOSURE This product is considered as being non-toxic. Use of good industrial hygiene practices is recommended.

TARGET ORGANS Not applicable.

12. ECOLOGICAL INFORMATION

POTENTIAL EFFECT ON ENVIRONMENT	No data available
MOBILITY	Unknown.
PERSISTENCE AND DEGRADABILITY	No data available
POTENTIAL TO BIOACCUMULATE	Unknown.
ECOTOXICITY	No information available.
AQUATIC TOXICITY	None Established

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS	Disposal should be in accordance with local, state or national legislation.
EMPTY CONTAINER WARNINGS	Empty containers may contain product residue; follow MSDS and label warnings even after they have been emptied.

14. TRANSPORTATION INFORMATION

This section provided for general information only. The shipping description below may not represent requirements for all modes of transportation, packaging, shipping methods or locations outside of the United States.

FOR MORE COMPLETE TRANSPORTATION REGULATORY INFORMATION PLEASE REFER TO THE SHIPPING DOCUMENTS ACCOMPANYING THE SHIPMENT OF THIS PRODUCT.

15. REGULATORY INFORMATION

Not available

16. OTHER INFORMATION

HMIS® Hazard Ratings

HMIS® Hazard Ratings

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs by OSHA's 29 CFR 1910.1200, we choose to provide them as a service to our customers using HMIS®. These ratings are to be used only with a fully implemented HMIS® program. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

NPCA recommends that employers must determine appropriate PPE for the actual conditions under which this product is used in their workplace. For information on PPE codes, consult the HMIS® Implementation Manual.

When two ratings are provided for Health, the first represents the material 'as supplied', and the second represents the material 'in use'.

* = chronic health hazard

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Health

1

Flammability

1

Reactivity

0

RECOMMENDED USE
MSDS DATE

Food products
02-November-2018

ADDITIONAL INFORMATION: The information given and the recommendations made herein apply to our product(s) alone and are not combined with other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. No guaranty of accuracy is made. It is the purchaser's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes.