

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name: FSS Plant Keratin PET
Product Code: FSS10954LNZ

1.2. Relevant identified uses of the substance/mixture and uses advised against

Recommended Use: Topical cosmetic use.
Restrictions on Use: None.

1.3. Details of the supplier of the safety data sheet

Company name: Formulator Sample Shop[®] Srl
Company address: Via Petrolo Litta n. 9 – 20008 Bareggio (Milan) Italy
Telephone number: +39 (0)2 902 78 641
Fax number: +39 (0)2 903 60 718
E-mail address: info@formulatorsampleshop.eu

1.4. Emergency telephone number

Emergency telephone number: +39 (0)2 902 78 641 - Mon-Fri: 8:30AM-5:00PM

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance/mixture

Classification:

GHS / CLP

Basis for Classification: Based on present data no classification and labeling is required according to GHS, taking into account the national implementation (United Nations version 2011).

USA

OSHA Regulatory Status: This material is non-hazardous as defined by the American OSHA Hazard Communication Standard (29 CFR 1910.1200).

Europe

Basis for Classification: - According to present data no classification and labeling is required according to Regulation (EC) No. 1272/2008.
- This product is not classified as hazardous to health or environment according to the CLP regulation.

Nature of special risks attributed: None in particular



2.2. Labeling Elements

Provided symbols / Pictograph:	No hazard symbol expected
Hazard Statements/Signal Words:	Not applicable
Precautionary Statements:	P233: Keep container tightly closed P281: Use personal protective equipment as required P402: Store in a dry place P404: Store in a closed container P410: Protect from sunlight P411: Store at temperatures not exceeding 32°C

2.3. Other hazards which do not result in classification:

No particular fire or explosion hazard.

By mechanical effect: No particular hazards

By hygroscopic effect: No particular hazards

US NFPA 704 (National Fire Protection Association) Hazard Rating System:

Health hazard:	Rating 0, Normal Material
Flammability:	Rating 0, Will Not Burn
Reactivity:	Rating 0, Stable
Other Hazard Information:	None

Results of PBT and vPvB assessment:

-PBT: Not applicable

-vPvB: Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Composition/information on ingredients

Common Chemical Name:	Hydrolyzed Corn Protein & Hydrolyzed Wheat Protein & Hydrolyzed Soy Protein
Generic Name:	
Chemical Family:	Proteins

Description: Mixture: consisting of the following components. This section describes all components of the mixture.

<u>Substance</u>	<u>CAS Numbers</u>	<u>EC Numbers</u>	<u>Percentage</u>
Water	7732-18-5	231-791-2	73.50 – 79.50%
Hydrolyzed Corn Protein	73049-73-7 (or) 100209-41-4	N/A (or) 309-349-6	6.70 – 8.30%
Hydrolyzed Wheat Protein	70084-87-6 (or) 94350-06-8	N/A (or) 305-225-0	6.70 – 8.30%
Hydrolyzed Soy Protein	68607-88-5	271-770-5	6.70 – 8.30%
Phenoxyethanol	122-99-6	204-589-7	0.90 – 1.10%

Information contained in this technical literature is believed to be accurate and is offered in good faith for the benefit of the customer. The company, however, cannot assume any liability or risk involved in the use of its chemical products since the conditions of use are beyond our control. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. We make no warranty of any kind, expressed or implied, other than that the material conforms to the applicable standard specification.



Formula: Not applicable

4. FIRST AID MEASURES

4.1. Description of first aid measures

General: In all cases of doubt, or when symptoms persist, seek medical attention.
Direct contact with skin: Rinse immediately with soap and water. Get medical advice if irritation develops.
Direct contact with eyes: Immediately rinse with plenty of water for at least 15 minutes, while keeping the eyes wide open. Consult with a physician.
Inhalation: Move to fresh air from exposure area. Get medical attention for any breathing difficulty.
Ingestion: Consult with a physician.
Protection of first-aiders: No special protection required.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms and effects: No data available

4.3. Indication of any immediate medical attention and special treatment needed

Indication: No data available

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing Media: Water, dry chemicals, foam and carbon dioxide.

5.2. Special hazards arising from the substance/mixture

Unusual Fire and Explosion Hazards: None known

5.3. Advice for firefighters

Special Fire Fighting Procedures: Move container from fire area if it can be done without risk.
Avoid inhalation of material or combustion by-products.
Stay upwind and keep out of low area.
Protection for fire-fighters: Boots, gloves, goggles.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Avoid contact with eyes.
For emergency responders: Avoid contact with eyes.



Personal Protective Equipment: Protective goggles

6.2. Environmental precautions

Environmental Protection Measures: Prevent entry into sewers and waterways. Do not allow material to contaminate ground water system.

6.3. Methods and material for containment and cleaning up

Recovery: Pick up free liquid for recycling or disposal. Residual liquid can be absorbed on an inert material. Sweep or vacuum up any powder and place in a clearly labeled waste container, avoiding dust formation.

Cleaning/Decontamination: Wash non-recoverable remainder with water.

6.4. Reference to other sections

References: Refer to paragraphs 8 and 13 for more information.

7. HANDLING AND STORAGE

7.1. Precaution for safe handling

Technical measures: Labeling: Keep out of the reach of children.
Measures: For industrial use, only as directed.
Safe handling advice: Wash hands after use. Avoid storage near feed or food stuff.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Keep container closed.
Recommended Storage Conditions: Store in a dry place at temperatures not exceeding 32°C. Based on stability studies, the optimum storage temperature for maximization of shelf life is 23 - 25°C. However, it may be stored at temperatures between 16 and 32°C if such specific temperature control is not available. Do not freeze. Please refer to stability data for effects heat or cold may have on the specifications of the product.

Incompatible products: Avoid contact with strong oxidizers.
Refer to the detailed list of incompatible materials (Section 10 Stability/Reactivity).

Packaging: Product may be packaged in normal commercial packaging.
Packaging materials: Recommended - Polypropylene & High Density Polyethylene.

7.3. Specific and use(s)

Use(s): Cosmetic use.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautionary statements: Ensure adequate ventilation.

8.1. Control parameters

Occupational exposure Limits:

France: Not Determined
ACGIH: Not Determined
Korea: Not Determined
UK: Not Determined

Surveillance procedures: Not Determined
Engineering measures: Not Determined

8.2. Exposure controls/ Personal Protective Equipment:

Respiratory protection: Local exhaust.
Hand protection: Protective gloves made of rubber or neoprene.
Eye protection: Safety glasses.
Collective emergency equipment: Eye fountain.
Skin and Body Protection: Suitable protective clothing.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.
Measures related to the Environment: No particular measures.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Clear to hazy, brown colored liquid
Color (Gardner): 13 Maximum
Odor: Slight, characteristic

Evaporation Residue
(JSCI (1g-1hr-105°C)): 20.00% Minimum

pH (JSCI Direct): 5.00 – 6.00

Residue on Ignition
(JSCI (Method 2, 1g, 600°C)): 4.00% Maximum

Identification 1
(Sodium Hydroxide + Cupric Sulfate): Positive

Identification 2 (Ninhydrin TS):	Pass
Identification 3 (10ml of FSS Plant Keratin PET into 20ml screw tube, heat in a 105°C Thermostat for 30 min):	Pass
Phenoxyethanol:	0.9 – 1.1%
Heavy Metals (JSCI (Method 2, 1.0g, Lead standard solution, 2.0mL)):	< 20 ppm
Lead:	< 10 ppm
Arsenic (JSCI (Method 3, 1.0g, Apparatus B)):	< 2 ppm
Cadmium:	< 1 ppm
Microbial Content:	< 100 CFU/g; No pathogens
Yeast & Mold:	< 100 CFU/g
Gram Negative Bacteria:	0 CFU/g
Specific Gravity:	1.05
Vapor density:	Not applicable
Boiling Point:	100°C
Freezing Point:	0°C
Melting point:	Not applicable
Flash point:	> 200°F
Oxidizing properties:	Non oxidizing material according to EC criteria.
Solubility:	
In water:	Soluble
In organic solvents:	Not determined
Log P:	Not determined
9.2. Other information	
Information:	N/A

10. STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: None known



10.2. Chemical stability

Stability: Stable under ordinary conditions of use and storage up to one year then re-test to full product specifications to extend shelf life.

10.3. Possibility of hazardous reactions

Hazardous reaction: None known

10.4. Conditions to avoid

Conditions to avoid: No dangerous reactions known under use of normal conditions.
Avoid extreme heat.

10.5. Incompatible materials

Incompatibility: No dangerous reaction known with common products.

10.6. Hazardous decomposition products

Hazardous decomposition: None known

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Ingestion: Not Determined
Dermal: Non-Irritant (Dermal Irritation Model)
Ocular: Non-Irritant (Ocular Irritation Model)
Inhalation: Not Determined

Acute toxicity data: Non-Irritant, Non-Primary Sensitizer & Non-Photo Irritant

Sensitization: Non-Primary Sensitizer; Will not cause allergic contact dermatitis (In Chemico Skin Sensitization Direct Peptide Reactivity Assay & In Vitro Skin Sensitization ARE-Nrf2 Luciferase Test Method)

Repeated dose toxicity:
Subacute to chronic toxicity: No known effects
Not Determined

Mutagenicity: Non-Mutagenic (OECD471/ISO10993.Part 3 – Genotoxicity: Bacterial Reverse Mutation Test)

Additional Toxicological Information: This product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.



Specific effects:

Carcinogenicity:	No known effects
Mutagenicity:	No known effects
Reproductive toxicity:	No known effects
Neuro-toxicity:	No known effects

For more information: Does not present any particular risk on handling under normal conditions of good occupational hygiene practice.

This product has not been tested for the following:

- Primary cutaneous and corrosive irritation
- Acute oral toxicity

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Effects on the aquatic environment: EC₁₀ (Freshwater Alga): 105.92 mg/L - Not harmful to aquatic organisms
EC₂₀ (Freshwater Alga): 211.65 mg/L - Not harmful to aquatic organisms

12.2. Persistence and degradability

Persistence and degradability: Readily Biodegradable (89.45% biodegradation after 28 days of testing)

12.3. Bioaccumulative potential

Bioaccumulative potential: Not determined

12.4. Mobility

Precipitation:

Expected behavior of the product: Ultimate destination of the product: Soil & sediment.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment: Not determined

12.6. Other adverse effects

Other adverse effects: None known

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Residues from product

Prohibition: Do not allow the product to be released into the Environment.
Destruction/Disposal: Dispose of in accordance with relevant local regulations.

Contaminated packaging

Decontamination/cleaning: Cleaning is not required prior to disposal.
Destruction/Disposal: Dispose of in accordance with relevant local regulations.

Note: Take all necessary precautions when disposing of this product according to local regulations.

14. TRANSPORT INFORMATION

14.1. UN number

Number: None

14.2. UN proper shipping name

Shipping name: None

14.3. Transport hazard class(es)

Hazard class: Not classified as dangerous for transport.

Land (rail/road): Material is not restrictive for land transport and is not regulated by ADR/RID
Sea: Material is not restrictive for sea transport and is not regulated by IMO/IMDG
Air: Material is not restrictive for land transport and is not regulated by ICA/IATA
Marine Pollutant: No

Transport/Additional Information: Not regulated for US DOT Transport in non-bulk containers.
This material is not dangerous or hazardous.

14.4. Picking group

Picking group: None

14.5. Environmental hazards

Environmental hazards: None

14.6. Special precautions for user

Precautions: None known

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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk: N/A

The above regulatory prescriptions are those valid on the date of publication of this sheet. However, given the possible evolution of transport regulations for hazardous materials and in the event of the MSDS in your possession dating back more than 12 months, it is advisable to check their validity with your sales office.

15. REGULATORY INFORMATION

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

Labeling:

EC regulations: This product does not need to be labeled in accordance with EC Directives or respective national laws

Further regulations

United Kingdom: Handle in accordance with relevant British regulation: control of substance Hazardous to Health Regulations Environmental Hygiene Guidance: EH40 Workplace Exposure Limits (revised annually)

Korea regulations: Industrial safety and hygiene regulation: No
Hazardous material control regulation: No
Fire prevention regulation: No

Other regulations:

EINECS inventory status: Aqua: 231-791-2
Hydrolyzed Corn Protein: N/A (or) 309-349-6
Hydrolyzed Wheat Protein: N/A (or) 305-225-0
Hydrolyzed Soy Protein: 271-770-5
Phenoxyethanol: 204-589-7

TSCA inventory status: Exempt

AICS inventory status: Exempt: 100209-41-4 & 70084-87-6
Listed: 7732-18-5 & 73049-73-7 & 94350-06-8 & 68607-88-5 & 122-99-6

Canadian (CEPA DSL) inventory status: Listed as Water (DSL) & Peptones (DSL) (or) Protein hydrolyzates, corn (Revised ICL) & Glutens, enzyme-modified (DSL) (or) Protein hydrolyzed, wheat germ (Revised ICL) & Protein hydrolyzates, soya (DSL) & Ethanol, 2-phenoxy- (DSL)

Japan (MITI list): Water & Hydrolyzed Corn Protein & Hydrolyzed Wheat Protein & Hydrolyzed Soy Protein & Phenoxyethanol

Korea: Water & Hydrolyzed Corn Protein & Hydrolyzed Wheat Protein & Hydrolyzed Soy Protein & Phenoxyethanol

Other regulations (Continued):

China inventory status:	Water & Hydrolyzed Corn Protein & Hydrolyzed Wheat Protein & Hydrolyzed Soy Protein & Phenoxyethanol
Philippines inventory status:	Exempt: Hydrolyzed Corn Protein (100209-41-4) & Hydrolyzed Wheat Protein (70084-87-6 (or) 94350-06-8) Listed as Water & Peptones & Protein hydrolyzates, soya & Ethanol, 2-phenoxy-

15.2. Chemical safety assessment

Assessment: N/A

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the products described in this sheet. The user's attention is drawn to the possible existence of additional provision which complete these regulations. Please refer to all applicable international, national and local regulations and provisions

16. OTHER INFORMATION

Prohibited uses: For specific uses, food industry, ask the manufacturer for more information.

Last Revision Date: 17/11/2020

Preparation Date: 02/08/2021

MSDS summary of changes

- Added Heavy Metals & Arsenic – Section 9 (Physical & Chemical Properties) & Updated Transport Information – Section 14 (Transport Information)
- Updated Product Code – Section 1 (Identification), Updated Compositional Breakdown & CAS/EINECS#'s – Section 3 (Composition / Information on Ingredients) & Section 15 (Regulatory Information), Updated Odor, Added Identification & Phenoxyethanol – Section 9 (Physical & Chemical Properties)
- Added Germany Regulatory Information – Section 15 (Regulatory Information)
- Updated Microbial Content & Test Methods – Section 9 (Physical & Chemical Properties) & Added Irritation & Mutagenicity Data – Section 11 (Toxicological Information)
- Added Acute Toxicity Data – Section 11 (Toxicological Information)
- Added Lead & Cadmium – Section 9 (Physical & Chemical Properties) & Added Biodegradability Data – Section 12 (Ecological Information)
- Updated Specific Gravity – Section 9 (Physical & Chemical Properties)
- Updated Precautionary Statement – Section 2 (Hazards Information), Updated Recommend Storage Conditions – Section 7 (Handling & Storage), Updated Acute Toxicity Data – Section 11 (Toxicological Information) & Added Ecotoxicity Data – Section 12 (Ecological Information)
- Updated Europe Basis for Classification – Section 2 (Hazards Information) & Added Acute Toxicity & Sensitization Data – Section 11 (Toxicological Information)

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Safety Information Sheet

Article 31 of "REACH" Regulation (EC) N. 1907/2006 and its amendments do not apply to this product. This document is provided for information only, is not a Safety Data Sheet, it therefore does not need to meet the regulatory requirements of Annex II of this regulation.

MSDS summary of changes (Cont.)

- Updated Recovery Methods for Cleaning Up – Section 6 (Accidental Release Measures)

Further information:

This document is in accordance with EC Directive 2001/58/EC and the Regulation (EC) 1907/2006 (REACH) Annex II.

The information given is based on our knowledge of this product, at the time of publication in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than which it was intended. This is not in any way excuse the user from knowing and applying all the regulations governing their activity. It is sole responsibility of the user to take all precautions required in handling the product. The purpose of mandatory regulation mentioned is to help the user to fulfill his obligations regarding the use of products. This information is not exhaustive, this is not exonerated the user from ensuring that legal obligations other than those mentioned, relating to the use and storage.