SECTION 1. IDENTIFICATION

Product Name/Identifier         FSS Keratin Hydrolysate 30 PF
Product Code                   FSS20586PF
Recommended Use               Topical Cosmetic Use
Restrictions on Use            None

Supplier/Manufacturing Site     Formulator Sample Shop
Address                        P.O. Box 296
                                Iron Station, NC 28080, USA
Telephone No. (24hrs)          1-704-276-7099
Fax No.                        1-704-353-7987
Emergency Telephone #          1-704-276-7099 (Mon-Fri: 8:00AM – 5:00PM EST)

SECTION 2. HAZARD(S) IDENTIFICATION

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 Directives 67/548/EEC or 1999/45/EC.
-This product is not classified as hazardous to health or environment according to the CLP regulation.

Labeling Elements:

Pictograph:          No hazard symbol expected
Hazard statements/Signal Word: Not applicable
Precautionary statements: P233: Keep container tightly closed
The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made and we assume no liability regarding this.

In every case we urge and recommend that our customers make their own tests to determine to their own satisfaction whether the product is suitable for their particular purposes under their own operating conditions. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent without the authority from the owner of this patent.

Other hazards which do not result in classification:

No particular fire or explosion hazard.
By mechanical effect: No particular hazards.
By hydroscopic 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

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Chemical Name: Hydrolyzed Keratin

Generic name:

Chemical Family: Hydrolyzed Protein

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Numbers</th>
<th>EC Numbers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>231-791-2</td>
<td>65.50%</td>
</tr>
<tr>
<td>Hydrolyzed Keratin</td>
<td>69430-36-0</td>
<td>274-001-1</td>
<td>32.50%</td>
</tr>
<tr>
<td>Leuconostoc/Radish Root Ferment</td>
<td>84775-94-0</td>
<td>283-918-6</td>
<td>2.00%</td>
</tr>
</tbody>
</table>

Formula: Not applicable
SECTION 4. FIRST-AID MEASURES

General: In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation: Move to fresh air from exposure area. Get medical attention for any breathing difficulty.

Skin contact: Rinse with soap and water. Get medical advice if irritation develops.

Eye contact: Immediately rinse with plenty of water for at least 15 minutes, while keeping the eyes wide open. Consult with a physician.

Ingestion: Consult with a physician.

Protection of first-aiders: No special protection required.

SECTION 5. FIRE-FIGHTING MEASURES

Fire and explosion hazards: Not considered to be a fire and explosion hazard

Extinguishing media:

Suitable: Water, dry chemicals, foam and carbon dioxide

Not suitable: None known

Fire fighting: 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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with eyes.

Personal Protective Equipment:
- Protective goggles
Environmental precautions: Prevent entry into sewers and waterways. Do not allow material to contaminate ground water system.

Methods for cleaning up:

Recovery: Pick up free liquid for recycling or disposal. Residual liquid can be absorbed on an inert material.

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

Disposal: For disposal of residues refer to sections 8 & 13.

SECTION 7. HANDLING AND STORAGE

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.

Storage
Technical measures: Keep container closed.
Recommended Storage Conditions: Store in a cool, dry place. This material must be stored at room temperature (23 - 25°C). It should not be exposed to excessive heat or cold. Do not freeze.

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

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

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Precautionary statements: Ensure adequate ventilation

Control parameters
Safety Data Sheet

FSS Keratin Hydrolysate 30 PF

Date: 01 / 12 / 2016 Version: 5

Occupational exposure Limits:
France: Not Determined
ACGIH: Not Determined
Korea: Not Determined
UK: Not Determined
Surveillance procedures: Not Determined
Engineering measures: Not Determined

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear to hazy amber liquid
Color: 11 Gardner Maximum
Odor: Characteristic
NVM (1g-1hr-105°C): 30.0 – 35.0%
pH (Direct): 5.5 – 7.0
Heavy Metals: < 20 ppm
Arsenic: < 2 ppm
Microbial Content: < 100 CFU/g

Specific Gravity: Not determined
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
SECTION 10. STABILITY AND REACTIVITY

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

Hazardous reactions: None known

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

Materials to avoid: No dangerous reaction known with common products.

Hazardous decomposition products: None known

SECTION 11. TOXICOLOGICAL INFORMATION

Ingestion: Not Determined

Dermal: Non-Irritant (Dermal Irritation Model)

Ocular: Non-Irritant (Ocular Irritation Model)

Inhalation: Not Determined

Acute toxicity data: Not Determined

Sensitization: Non-Primary Sensitizers

Repeated dose toxicity: No known effects

Subacute to chronic toxicity: 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
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
Effects on the aquatic environment: Not Determined

Biodegradability:
Persistence: Not Determined

Bioaccumulation:
Octanol / water partition coefficient: Not Determined

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

Other Adverse Effects: None known

SECTION 13. DISPOSAL CONSIDERATIONS

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:

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

SECTION 14. TRANSPORT INFORMATION

UN Number: None
UN Shipping Name: None

Transport Hazard Class: Not classified as dangerous for transport
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**SECTION 15. REGULATORY INFORMATION**

**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 Keratin: 274-001-1
- Leuconostoc/Radish Root Ferment Filtrate: 283-918-6

TSCA inventory status:
- Exempt

AICS inventory status:
- 7732-18-5 & 69430-36-0 & 84775-94-0

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

Special Precautions for User: None known

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.
The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made and we assume no liability regarding this formula or information contained herein. In every case we urge and recommend that our customers make their own tests to determine to their own satisfaction whether the product is suitable for their particular purposes under their own operating conditions. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent without the authority from the owner of this patent.