SAFETY DATA SHEET

Creation Date	01.December.2022
Revision Date	20.May.2024
Revision Number	4.3

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Yeast Casitone Fatty Acids Broth Full Recipe
Product code	GMNB-YCFA03
Brand	GMExpression

1.2 Other means of identification

YCFA Medium Full Recipe

1.3 Relevant identified uses and uses advised against

Identified uses:	For R&D use only.
Uses advised against:	This product should not be used for pharmaceutical, household or other uses.

1.4 Details of the supplier of the safety data sheet

Company:	General Molecular Expression Service Pty Ltd. Address: ThincLab, Hannaford Building, Waite Road, SA 5064 AUSTRALIA
E-mail:	support@gmexpression.com

1.5 Emergency telephone

Emergency Phone	Company emergency call (24/7): +61 481 192 170

SECTION 2: Hazards identification

2.1 GHS Classification

OSHA 29 CFR 1910.1200, CLP/GHS Regulation (EC) 1272/2008

Not classified as a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Pictogram	None
Signal Word	None
Hazard statement(s)	Not a hazardous substance or mixture.
Precautionary statement(s)	Not a hazardous substance or mixture.
GHS Label Elements	Product contains no substances considered to be hazardous, at their given concentrations.

2.3 Other hazards - none

SECTION 3: Composition/information on ingredients

3.1 Substance/Mixture: Mixture

3.2 Mixtures

This product is a mixture of substances for culture media and contains no hazardous constituents, or the concentration of all chemical constituents is below the regulatory threshold limits described in the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Regulation (EC) No. 1272/2008. Major components are only listed for reference.

Principle Components	%	CAS
Mixture A	**Total - 279.5 g**	
Tryptone	46.6	9000-71-9
Yeast extract	11.7	8013-01-2
Glucose	9.3	50-99-7
Maltose	9.3	6363-53-7
Cellobiose	9.3	528-50-7
Dipotassium hydrogen phosphate	2.1	7758-11-4
Potassium dihydrogen phosphate	2.1	7778-77-0
Sodium chloride	4.3	7647-14-5
Ammonium sulphate	4.3	7783-20-2
Other components	<1	
Mixture B	**Total - 65 g**	
Sodium bicarbonate	77.5	144-55-8
L-Cysteine-HCl	19.4	52-89-1
Potassium hydroxide	2.2	1310-58-3
Other components	<0.9	
Stock C	**Total - 41.5 ml**	
Acetic acid	65.3	64-19-7
Propionic acid	23.1	79-09-4
iso-Butyric acid	3.87	79-31-2
n-Valeric acid	3.87	109-52-4
iso-Valeric acid	3.87	503-74-2
Stock D	**Total - 30 ml**	
Vitamin B7	<0.01	58-85-5
Vitamin B9	<0.01	59-30-3
Vitamin B6	<0.01	58-56-0
Vitamin B12	<0.01	68-19-9
Vitamin Bx	<0.01	150-13-0
Water	>99.99	7732-18-5
Stock E	**Total - 30 ml**	
Vitamin B2	<0.01	83-88-5
Vitamin B1	<0.01	67-03-8
Water	>99.99	7732-18-5
Stock F	**Total - 50 ml**	
Potassium hydroxide	<5.6	83-88-5
Water	>94.4	7732-18-5

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice
Consult a physician. Show this material safety data sheet to the doctor in attendance.

In case of skin contact
Take off immediately all contaminated clothing. Rinse skin with water or shower.

In case of eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

If swallowed
Rinse mouth with water (do not swallow). Never make an unconscious person vomit or drink fluids.

Notes to Physician
Treat symptomatically.

4.2 Most important symptoms and effects, both acute and delayed

May cause irritation; no further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically; no further relevant information is available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Product in itself is not flammable. Use extinguishing measures that are appropriate to the surrounding fire and environment.

5.2 Special hazards arising from the substance or mixture

Small volumes of decomposition products during a fire may include carbon oxides.

5.3 Advice for firefighters

Use protective equipment suitable to extinguish surrounding fire (fire protection suit, self-breathing apparatus pressure demand).

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert. For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures
Change contaminated clothing. Wash hands after working with substance.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities Storage conditions

Store conditions
Keep container tightly closed. Do not store near combustible materials.

Store stability
Recommended storage temperature: RT.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.3 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters
We are not aware of any national exposure limit.

8.2 Exposure controls

Appropriate engineering controls
Change contaminated clothing. Wash hands after working with substance.

Personal protective equipment

Eye/face protection
Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Required when dusts are generated.
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure
Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

A) Physical state	Powder, liquid
B) Colour	No data available
C) Odour	No data available
D) Melting point/freezing point	No data available
E) Initial boiling point and boiling range	No data available
F) Flammability (solid, gas)	The product is not flammable.
G) Upper/lower flammability or explosive limits	No data available
H) Flash point	No data available
I) Autoignition temperature	No data available
J) Decomposition temperature	No data available
K) PH	No data available
L) Viscosity	
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
M) Water solubility	No data available
N) Partition coefficient n-octanol/water:	No data available
O) Vapour pressure	No data available
P) Density	No data available
Relative density	No data available
Q) Relative vapour density	No data available
R) Particle characteristics	
Particle Size	No data available
Distribution	No data available
S) Explosive properties	Not classified as explosive.
T) Oxidizing properties	none

9.2 Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions
No hazardous reactions if used for its intended purpose

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Oxidizing substances

10.6 Hazardous decomposition products
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture

Acute toxicity
Oral: No data available.
Dermal: No data available.
Vapour: No data available.

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
No data available

Reproductive toxicity
May harm the unborn child.
May impair fertility.

Specific target organ toxicity -single exposure
No data available

Specific target organ toxicity -repeated exposure
No data available

Aspiration hazard
No data available

11.2 Additional Information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Mixture
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

The ecological effects have not been thoroughly investigated but currently none have been identified.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

The information presented only applies to the material as supplied. The considerations may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the final waste generated to determine the proper disposal methods in compliance with applicable local, regional and national laws and regulations.

Waste disposal:	This material as supplied is not regarded as hazardous waste. If inoculated with microorganisms, autoclave or incinerate prior to disposal.
Contaminated package:	Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: - IMDG: - IATA-DGR: -

14.2 UN proper shipping name

ADR/RID:	Not dangerous
IMDG:	Not dangerous
IATA-DGR:	Not dangerous

14.3 Transport hazard classes

ADR/RID: - IMDG: - IATA-DGR: -

14.4 Packaging group

ADR/RID: - IMDG: - IATA-DGR: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA-DGR: no

14.6 Special precautions for user

14.7 Incompatible materials

Further information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation

Substance or mixture

SARA Section 302 (required reporting):

No chemicals in this material are subject to the reporting requirements of SARA, Title III, Section 302

SARA Section 313 (specific toxic chemical listings):

This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313

SARA Section 311/312 (acute/chronic health, fire, reactive, sudden release or pressure hazards):

No SARA hazards.

Carcinogenic categories
NTP (National Toxicology Program)
Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)
Substance is not listed.

Product related hazard information:
Observe the general safety regulations when handling chemicals.

Water hazard class:
Generally not hazardous for water.

SECTION 16: Other information

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

General Molecular Expression Service Pty Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See shop.gmexpression.com for additional terms and conditions.