


**Alpha Biosciences - Yeast Nitrogen Base w/o Amino Acids
Y25-105**

SECTION 1: IDENTIFICATION

- 1.1 GHS Product identifier:** Alpha Biosciences - Yeast Nitrogen Base w/o Amino Acids
Y25-105
- Other means of identification:**
Non-applicable
- 1.2 Recommended use of the chemical and restrictions on use:**
Relevant uses: Culture medium
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**
Alpha Biosciences, Inc.
3651 Clipper Mill Road
21211 Baltimore - Maryland - USA
Phone: 410.467.9983 - Fax: 410.467.5088
www.alphabiosciences.com
- 1.4 Emergency phone number:**

SECTION 2: HAZARD(S) IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
- NFPA:**
Health Hazards: 0
Flammability Hazards: 1
Instability Hazards: 0
Special Hazards: Non-applicable
- 29 CFR 1910.1200:**
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
- 2.2 Label elements:**
- NFPA:**
- 
- 29 CFR 1910.1200:**
- Hazard statements:**
Non-applicable
- Precautionary statements:**
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P501: Dispose of the contents/containers according to the local, state and federal regulations.
- 2.3 Hazards not otherwise classified (HNOC):**
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances:**
Non-applicable
- 3.2 Mixtures:**
- Chemical description:** Mixture of substances
- Components:**
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

| Identification | Chemical name/Classification | Concentration |
|-----------------|---|---------------|
| CAS: 10043-52-4 | calcium chloride Eye Irrit. 2A: H319 - Warning | 1 - <2 % |
| CAS: 497-19-8 | sodium carbonate Eye Irrit. 2A: H319 - Warning | 0,25 - <1 % |
| CAS: 10043-35-3 | Boric acid Repr. 1B: H360 - Danger | <0,25 % |
| CAS: 59-67-6 | Nicotinic acid Eye Irrit. 2A: H319 - Warning | <0,25 % |
| CAS: 7446-20-0 | zinc sulphate· 7 H₂O Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger | <0,25 % |
| CAS: 7705-08-0 | Iron trichloride Acute Tox. 4: H302; Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Irrit. 2: H315 - Danger | <0,25 % |
| CAS: 7681-11-0 | Potassium iodide STOT RE 1: H372 - Danger | <0,25 % |
| CAS: 7758-98-7 | Copper sulphate Acute Tox. 4: H302; Eye Irrit. 2A: H319; Skin Irrit. 2: H315 - Warning | <0,25 % |
| CAS: 59-30-3 | Folic acid | <0,25 % |

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

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SECTION 5: FIRE-FIGHTING MEASURES (continued)

Non-applicable

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:

It is recommended:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

US. ACGIH Threshold Limit Values (2022):

| Identification | Occupational exposure limits | | |
|----------------|------------------------------------|---------|---------------------|
| | Iron trichloride CAS: 7705-08-0 | TLV-TWA | |
| TLV-STEL | | | 2 mg/m ³ |

CALIFORNIA- TABLE AC-1 PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS:

| Identification | Occupational exposure limits | | |
|-----------------------------------|------------------------------------|-----|---------------------|
| | Iron trichloride CAS: 7705-08-0 | PEL | |
| STEL | | | |
| Copper sulphate CAS: 7758-98-7 | PEL | | 1 mg/m ³ |
| | STEL | | |

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

8.2 Appropriate engineering controls:


A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection


The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

| Pictogram | PPE | Remarks |
|--|---------------------------------------|---|
|  Mandatory hand protection | Protective gloves against minor risks | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR) |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

| Pictogram | PPE | Remarks |
|--|---|---|
|  Mandatory face protection | Panoramic glasses against splash/projections. | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR) |



E.- Bodily protection

| Pictogram | PPE | Remarks |
|-----------|----------------------|---|
| | Work clothing | Replace before any evidence of deterioration. |
| | Anti-slip work shoes | Replace before any evidence of deterioration. |

F.- Additional emergency measures

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Emergency measure | Standards | Emergency measure | Standards |
|---|---|--|--|
|  Emergency shower | ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011 |  Eyewash stations | DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011 |

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 °F: Solid
 Appearance: Not available
 Color: Not available
 Odor: Not available
 Odour threshold: Non-applicable *

Volatility:

Boiling point at atmospheric pressure: Non-applicable *
 Vapour pressure at 68 °F: Non-applicable *
 Vapour pressure at 122 °F: Non-applicable *
 Evaporation rate at 68 °F: Non-applicable *

Product description:

Density at 68 °F: 1890.9 kg/m³
 Relative density at 68 °F: 1.891
 Dynamic viscosity at 68 °F: Non-applicable *
 Kinematic viscosity at 68 °F: Non-applicable *
 Kinematic viscosity at 104 °F: Non-applicable *
 Concentration: Non-applicable *
 pH: Non-applicable *
 Vapour density at 68 °F: Non-applicable *
 Partition coefficient n-octanol/water 68 °F: Non-applicable *
 Solubility in water at 68 °F: Non-applicable *
 Solubility properties: Non-applicable *
 Decomposition temperature: Non-applicable *
 Melting point/freezing point: Non-applicable *

Flammability:

Flash Point: Non-applicable
 Flammability (solid, gas): Non-applicable *
 Autoignition temperature: Non-applicable *
 Lower flammability limit: Non-applicable *
 Upper flammability limit: Non-applicable *

Explosive (Solid):

Lower explosive limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Upper explosive limit: Non-applicable *

Particle characteristics:

Median equivalent diameter: Non-applicable *

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties: Non-applicable *

Oxidising properties: Non-applicable *

Corrosive to metals: Non-applicable *

Heat of combustion: Non-applicable *

Aerosols-total percentage (by mass) of flammable components: Non-applicable *

Other safety characteristics:

Surface tension at 68 °F: Non-applicable *

Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|--------------------|------------------|-------------------------|----------------|----------------|
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |

10.5 Incompatible materials:

| Acids | Water | Oxidising materials | Combustible materials | Others |
|--------------------|----------------|---------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Precaution | Not applicable | Avoid alkalis or strong bases |

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect):

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for skin contact. For more information see section 3.
 - Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: 4-aminobenzoic acid (3); Iron trichloride (1)
 - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
 - Reproductive toxicity: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.
- E- Sensitizing effects:
 - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
 - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- G- Specific target organ toxicity (STOT)-repeated exposure:
 - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.
 - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

| Identification | Acute toxicity | | Genus |
|--|-----------------|----------------|--------|
| | LD50 oral | LD50 dermal | |
| calcium chloride CAS: 10043-52-4 | LD50 oral | 2301 mg/kg | Rat |
| | LD50 dermal | 5100 mg/kg | Rabbit |
| | LC50 inhalation | Non-applicable | |
| sodium carbonate CAS: 497-19-8 | LD50 oral | 2800 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| Boric acid CAS: 10043-35-3 | LD50 oral | >5000 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| Nicotinic acid CAS: 59-67-6 | LD50 oral | 7000 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| zinc sulphate· 7 H2O CAS: 7446-20-0 | LD50 oral | 1710 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

| Identification | Acute toxicity | | Genus |
|------------------------------------|----------------|----------------|--------|
| | LD50 oral | LD50 dermal | |
| Iron trichloride CAS: 7705-08-0 | 1300 mg/kg | >2000 mg/kg | Mouse |
| | Non-applicable | | Rabbit |
| | Non-applicable | | |
| Potassium iodide CAS: 7681-11-0 | 2068 mg/kg | Non-applicable | Rat |
| | Non-applicable | | |
| | Non-applicable | | |
| Copper sulphate CAS: 7758-98-7 | 300 mg/kg | Non-applicable | Rat |
| | Non-applicable | | |
| | Non-applicable | | |
| Folic acid CAS: 59-30-3 | 10000 mg/kg | Non-applicable | Mouse |
| | Non-applicable | | |
| | Non-applicable | | |

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

Acute toxicity:

| Identification | Concentration | | Species | Genus |
|-------------------------------------|-------------------|------|---------------------------------|------------|
| | LC50 | EC50 | | |
| calcium chloride CAS: 10043-52-4 | 4630 mg/L (96 h) | | Pimephales promelas | Fish |
| | 2400 mg/L (48 h) | | Daphnia magna | Crustacean |
| | 27000 mg/L (72 h) | | Pseudokirchneriella subcapitata | Algae |
| sodium carbonate CAS: 497-19-8 | 740 mg/L (96 h) | | Gambusia affinis | Fish |
| | 265 mg/L (48 h) | | Daphnia magna | Crustacean |
| | Non-applicable | | | |
| Boric acid CAS: 10043-35-3 | 447 mg/L (96 h) | | Oncorhynchus mykiss | Fish |
| | Non-applicable | | | |
| | Non-applicable | | | |
| Iron trichloride CAS: 7705-08-0 | 21.84 mg/L (96 h) | | Pimephales promelas | Fish |
| | 9.6 mg/L (48 h) | | Daphnia magna | Crustacean |
| | Non-applicable | | | |
| Potassium iodide CAS: 7681-11-0 | 896 mg/L (96 h) | | Oncorhynchus mykiss | Fish |
| | Non-applicable | | | |
| | Non-applicable | | | |

Chronic toxicity:

| Identification | Concentration | | Species | Genus |
|-------------------------------------|---------------|------|---------------------|------------|
| | NOEC | NOEC | | |
| calcium chloride CAS: 10043-52-4 | 230 mg/L | | Oncorhynchus mykiss | Fish |
| | 481 mg/L | | Daphnia magna | Crustacean |
| Boric acid CAS: 10043-35-3 | 11.2 mg/L | | Pimephales promelas | Fish |
| | 25.9 mg/L | | Hyalella azteca | Crustacean |
| Potassium iodide CAS: 7681-11-0 | 66.356 mg/L | | N/A | Fish |
| | 29.87 mg/L | | Daphnia magna | Crustacean |

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Substance-specific information:

| Identification | Bioaccumulation potential | |
|-------------------------------|---------------------------|---------|
| | BCF | Pow Log |
| Boric acid CAS: 10043-35-3 | 0 | -0.76 |
| | | |
| | Low | |

12.4 Mobility in soil:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Not available

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

- 14.1 UN number:** Non-applicable
- 14.2 UN proper shipping name:** Non-applicable
- 14.3 Transport hazard class(es):** Non-applicable
- Labels: Non-applicable
- 14.4 Packing group, if applicable:** Non-applicable
- 14.5 Marine pollutant:** No
- 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
- Physico-Chemical properties: see section 9
- 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 40-20:

- 14.1 UN number:** Non-applicable
- 14.2 UN proper shipping name:** Non-applicable
- 14.3 Transport hazard class(es):** Non-applicable
- Labels: Non-applicable
- 14.4 Packing group, if applicable:** Non-applicable
- 14.5 Marine pollutant:** No
- 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
- Special regulations: Non-applicable
- EmS Codes:
- Physico-Chemical properties: see section 9
- Limited quantities: Non-applicable
- Segregation group: Non-applicable
- 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

Transport of dangerous goods by air:

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SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IATA/ICAO 2022:

- 14.1 UN number:** Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
 Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Marine pollutant: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
 Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- CALIFORNIA LABOR CODE - The Hazardous Substances List: *zinc sulphate · 7 H₂O (7446-20-0)* ; *Iron trichloride (7705-08-0)* ; *Copper sulphate (7758-98-7)*
 - California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Birth defects or other reproductive harm: Non-applicable
 - California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Cancer: Non-applicable
 - CANADA-Domestic Substances List (DSL): *calcium chloride (10043-52-4)* ; *sodium carbonate (497-19-8)* ; *Boric acid (10043-35-3)* ; *Nicotinic acid (59-67-6)* ; *zinc sulphate · 7 H₂O (7446-20-0)* ; *Iron trichloride (7705-08-0)* ; *Potassium iodide (7681-11-0)* ; *Copper sulphate (7758-98-7)* ; *Folic acid (59-30-3)*
 - CANADA-Non-Domestic Substances List (NDSL): Non-applicable
 - Hazardous Air Pollutants (Clean Air Act): Non-applicable
 - Massachusetts RTK - Substance List: *zinc sulphate · 7 H₂O (7446-20-0)* ; *Iron trichloride (7705-08-0)* ; *Copper sulphate (7758-98-7)*
 - Minnesota - Hazardous substances ERTK: *Boric acid (10043-35-3)* ; *Iron trichloride (7705-08-0)*
 - New Jersey Worker and Community Right-to-Know Act: *zinc sulphate · 7 H₂O (7446-20-0)* ; *Iron trichloride (7705-08-0)* ; *Copper sulphate (7758-98-7)*
 - New York RTK - Substance list: *Boric acid (10043-35-3)* ; *zinc sulphate · 7 H₂O (7446-20-0)* ; *Iron trichloride (7705-08-0)* ; *Copper sulphate (7758-98-7)*
 - NTP (National Toxicology Program): Non-applicable
 - OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable
 - Pennsylvania Worker and Community Right-to-Know Law: *zinc sulphate · 7 H₂O (7446-20-0)* ; *Iron trichloride (7705-08-0)* ; *Copper sulphate (7758-98-7)*
 - Rhode Island - Hazardous substances RTK: *zinc sulphate · 7 H₂O (7446-20-0)* ; *Iron trichloride (7705-08-0)* ; *Copper sulphate (7758-98-7)*
 - The Toxic Substances Control Act (TSCA) : *calcium chloride (10043-52-4)* ; *sodium carbonate (497-19-8)* ; *Boric acid (10043-35-3)* ; *Nicotinic acid (59-67-6)* ; *Iron trichloride (7705-08-0)* ; *Potassium iodide (7681-11-0)* ; *Copper sulphate (7758-98-7)* ; *Folic acid (59-30-3)*
 - Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372): *zinc sulphate · 7 H₂O (7446-20-0)* ; *Copper sulphate (7758-98-7)*
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantities: *zinc sulphate · 7 H₂O (1 pounds)* ; *Iron trichloride (1000 pounds)* ; *Copper sulphate (10 pounds)*

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Take into consideration other applicable federal, state, and local laws and local regulations.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

- CONTINUED ON NEXT PAGE -



**Alpha Biosciences - Yeast Nitrogen Base w/o Amino Acids
Y25-105**

SECTION 16: OTHER INFORMATION (continued)

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

Acute Tox. 4: H302 - Harmful if swallowed.

Eye Dam. 1: H318 - Causes serious eye damage.

Eye Irrit. 2A: H319 - Causes serious eye irritation.

Met. Corr. 1: H290 - May be corrosive to metals.

Repr. 1B: H360 - May damage fertility or the unborn child.

Skin Irrit. 2: H315 - Causes skin irritation.

STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure.

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

IARC: International Agency for Research on Cancer

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Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET