


**Alpha Biosciences - TAT Broth Base  
T20-100**

**SECTION 1: IDENTIFICATION**

- 1.1 GHS Product identifier:** Alpha Biosciences - TAT Broth Base  
T20-100
- Other means of identification:**  
Not applicable (N/A)
- 1.2 Recommended use of the chemical and restrictions on use:**  
Relevant uses: Culture medium. For professional users/industrial user only.  
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: Not applicable (N/A)
- 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:**
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- The NFPA hazard diamond is a diamond-shaped icon divided into four colored quadrants: blue (top), red (right), yellow (bottom), and white (left). The numbers in the quadrants are: 0 in the blue quadrant, 1 in the red quadrant, and 0 in the yellow quadrant. The white quadrant is empty.
- 29 CFR 1910.1200:**
- Hazard statements:**  
Not applicable (N/A)
- 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):**  
Not applicable (N/A)

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

- 3.1 Substances:**  
Non-applicable
- 3.2 Mixtures:**
- Chemical description:** Mixture of substances
- Components:**  
None of the substances contained in the mixture are above the values fixed in Appendix D to § 1910.1200.

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**Alpha Biosciences - TAT Broth Base  
T20-100****SECTION 4: FIRST-AID MEASURES****4.1 Description of necessary measures:**

Consult a doctor in case of discomfort with this Safety data Sheet.

**By inhalation:**

In case of symptoms, move the person affected into fresh air.

**By skin contact:**

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet

**By eye contact:**

Rinse with water until the product has been eliminated. In case of problems, consult a doctor with the SDS of this product.

**By ingestion/aspiration:**

In case of consumption in large quantities, it is recommended to seek medical assistance.

**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:**

Not applicable (N/A)

**SECTION 5: FIRE-FIGHTING MEASURES****5.1 Suitable (and unsuitable) extinguishing media:****Suitable extinguishing media:**

Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion as a result of improper manipulation, storage or use any type of extinguishing agent can be used (ABC Powder, water,...)

**Unsuitable extinguishing media:**

Non-applicable

**5.2 Specific hazards arising from the chemical:**

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

**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:**

For accidental releases in excess of reportable quantities (RQ) (Table 302.4), refer to 40 CFR 302 for detailed instructions concerning reporting requirements and notify the National Response Center (800) 424-8802.

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

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**SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)**

**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 not necessary to take special measures to prevent environmental risks. For more information see subsection 6.2

**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.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:**

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

Nuisance dust: Inhalable dust 10 mg/m<sup>3</sup> // Respirable dust 4 mg/m<sup>3</sup>

**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
 <p>Mandatory hand protection</p>	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

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

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

It is not necessary to take additional emergency measures.

**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:	Characteristic
Color:	Not available
Odor:	Characteristic
Odour threshold:	Not applicable (N/A) *

**Volatility:**

Boiling point at atmospheric pressure:	Not applicable (N/A) *
Vapour pressure at 68 °F:	Not applicable (N/A) *
Vapour pressure at 122 °F:	Not applicable (N/A) *
Evaporation rate at 68 °F:	Not applicable (N/A) *

**Product description:**

Density at 68 °F:	Not applicable (N/A) *
Relative density at 68 °F:	Not applicable (N/A) *
Dynamic viscosity at 68 °F:	Not applicable (N/A) *
Kinematic viscosity at 68 °F:	Not applicable (N/A) *
Kinematic viscosity at 104 °F:	Not applicable (N/A) *
Concentration:	Not applicable (N/A) *
pH:	Not applicable (N/A) *
Vapour density at 68 °F:	Not applicable (N/A) *
Partition coefficient n-octanol/water 68 °F:	Not applicable (N/A) *
Solubility in water at 68 °F:	Not applicable (N/A) *

\*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)**

Solubility properties: Not applicable (N/A) \*  
Decomposition temperature: Not applicable (N/A) \*  
Melting point/freezing point: Not applicable (N/A) \*

**Flammability:**

Flash Point: Non-applicable  
Flammability (solid, gas): Not applicable (N/A) \*  
Autoignition temperature: Not applicable (N/A) \*  
Lower flammability limit: Not applicable (N/A) \*  
Upper flammability limit: Not applicable (N/A) \*

**Explosive (Solid):**

Lower explosive limit: Not applicable (N/A) \*  
Upper explosive limit: Not applicable (N/A) \*

**Particle characteristics:**

Median equivalent diameter: Not applicable (N/A) \*

**9.2 Other information:**

**Information with regard to physical hazard classes:**

Explosive properties: Not applicable (N/A) \*  
Oxidising properties: Not applicable (N/A) \*  
Corrosive to metals: Not applicable (N/A) \*  
Heat of combustion: Not applicable (N/A) \*  
Aerosols-total percentage (by mass) of flammable components: Not applicable (N/A) \*

**Other safety characteristics:**

Surface tension at 68 °F: Not applicable (N/A) \*  
Refraction index: Not applicable (N/A) \*

\*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	Not applicable	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 (CO<sub>2</sub>), carbon monoxide and other organic compounds

**SECTION 11: TOXICOLOGICAL INFORMATION**

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**Alpha Biosciences - TAT Broth Base  
T20-100****SECTION 11: TOXICOLOGICAL INFORMATION (continued)****11.1 Information on toxicological effects:**

LD50 oral &gt; 5000 mg/kg (rat)

**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
- Corrosivity/Irritability: Based on available data, the classification criteria are not met

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met
- Contact with the eyes: Based on available data, the classification criteria are not met

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met  
IARC: Not applicable (N/A)
- Mutagenicity: Based on available data, the classification criteria are not met
- Reproductive toxicity: Based on available data, the classification criteria are not met

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met
- Skin: Based on available data, the classification criteria are not met

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met

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
- 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

**Other information:**

Not applicable (N/A)

**Specific toxicology information on the substances:**

Not available

**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):**

Not available

**12.2 Persistence and degradability:**

Not available

**12.3 Bioaccumulative potential:**

Not available

**12.4 Mobility in soil:**

Not available

**12.5 Results of PBT and vPvB assessment:**

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**SECTION 12: ECOLOGICAL INFORMATION (continued)**

Non-applicable

**12.6 Other adverse effects:**

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Disposal methods:**

IT IS THE RESPONSIBILITY OF THE WASTE GENERATOR TO EVALUATE WHETHER HIS WASTES ARE HAZARDOUS BY CHARACTERISTICS OR LISTING.

**Waste management (disposal and evaluation):**

Follow RCRA framework and EPA regulation for to ensure that hazardous waste is managed safely and properly. Waste should not be disposed of to drains. Remind, It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing. See section 6 for further information about Accidental release measures.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Solid Wastes - Part 239 through 282.

State regulatory requirements for generators may be more stringent than those in the federal program. Be sure to check the state's policies.

**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:** Not applicable (N/A)
- 14.2 UN proper shipping name:** Not applicable (N/A)
- 14.3 Transport hazard class(es):** Not applicable (N/A)  
Labels: Not applicable (N/A)
- 14.4 Packing group, if applicable:** Not applicable (N/A)
- 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):** Not applicable (N/A)

**Transport of dangerous goods by sea:**

With regard to IMDG 40-20:

- 14.1 UN number:** Not applicable (N/A)
- 14.2 UN proper shipping name:** Not applicable (N/A)
- 14.3 Transport hazard class(es):** Not applicable (N/A)  
Labels: Not applicable (N/A)
- 14.4 Packing group, if applicable:** Not applicable (N/A)
- 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: Not applicable (N/A)  
EmS Codes:  
Physico-Chemical properties: see section 9  
Limited quantities: Not applicable (N/A)  
Segregation group: Not applicable (N/A)
- 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable (N/A)

**Transport of dangerous goods by air:**

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**SECTION 14: TRANSPORT INFORMATION (continued)**

With regard to IATA/ICAO 2023:

- 14.1 UN number:** Not applicable (N/A)
- 14.2 UN proper shipping name:** Not applicable (N/A)
- 14.3 Transport hazard class(es):** Not applicable (N/A)  
Labels: Not applicable (N/A)
- 14.4 Packing group, if applicable:** Not applicable (N/A)
- 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):** Not applicable (N/A)

**SECTION 15: REGULATORY INFORMATION**

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

- CALIFORNIA LABOR CODE - The Hazardous Substances List: Not applicable (N/A)
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Birth defects or other reproductive harm: Not applicable (N/A)
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) - Cancer: Not applicable (N/A)
- CANADA-Domestic Substances List (DSL): Not applicable (N/A)
- CANADA-Non-Domestic Substances List (NDSL): Not applicable (N/A)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantities: Not applicable (N/A)
- Hazardous Air Pollutants (Clean Air Act): Not applicable (N/A)
- Massachusetts RTK - Substance List: Not applicable (N/A)
- Minnesota - Hazardous substances ERTK: Not applicable (N/A)
- New Jersey Worker and Community Right-to-Know Act: Not applicable (N/A)
- New York RTK - Substance list: Not applicable (N/A)
- NTP (National Toxicology Program): Not applicable (N/A)
- OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Not applicable (N/A)
- Pennsylvania Worker and Community Right-to-Know Law: Not applicable (N/A)
- Rhode Island - Hazardous substances RTK: Not applicable (N/A)
- The Toxic Substances Control Act (TSCA) : Not applicable (N/A)
- Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372): Not applicable (N/A)

**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

**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:**

Not applicable (N/A)

**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).

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Safety data sheet  
according to 29 CFR 1910.1200

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**SECTION 16: OTHER INFORMATION (continued)**

**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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END OF SAFETY DATA SHEET