

7040 Virginia Manor Road Beltsville, MD 20705, USA Web: www.abpbio.com Email: info@abpbio.com

Material Safety Data Sheet

Section 1. Identification of the Substance/Mixture

Product name:

TdT reaction buffer

Manufacturer/Supplier identification

ABP Biosciences 7040 Virginia Manor Road, Beltsville, MD 20705, USA Web: www.abpbio.com Tel: 301-658-7993 Email: info@abpbio.com

For research use only. Not for use in diagnosis procedures

Section 2. Hazards Identification

GHS Classification

| Signal Word: Hazard pictograms: Health hazards: Physical hazards: Environmental hazards: Hazard Statements: Prevention: Response: Disposal: | None Not hazardous Not hazardous Not hazardous Not Applicable Not Applicable Not Applicable Not Applicable |
|---|---|
| Other hazards: | Not Applicable Not Applicable |
| HMIS Health | 0 |
| | • |
| Flammability | 0 |
| Reactivity | 0 |

Section 3. Composition/Information on Ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

Section 4. First Aid Measures

Description of first aid measures

| Skin contact | Rinse skin with water. Immediate medical attention is not required. |
|--------------|--|
| Eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Ingestion | Not expected to present a significant ingestion hazard under |

anticipated conditions of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

Section 5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO_2) . Foam. Dry chemical. No information available.

Special hazards arising from the substance or mixture Not known

Protective equipment and precautions for firefighters Standard procedure for chemical fires.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation Always wear recommended Personal Protective Equipment Use personal protection equipment See section 8 for more information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. Handling and Storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.



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Specific end use(s)

For research use only.

Section 8. Exposure Controls/Personal Protection

| Control parameters | | |
|-------------------------------|---|--|
| Exposure Limits | Contains no substances with occupational exposure limit values. | |
| Engineering Measures | Ensure adequate ventilation, especially in confined areas. | |
| Exposure controls | | |
| Personal Protective Equipment | | |
| Respiratory protection | In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards. | |
| Hand protection | Wear suitable gloves. Glove material: Compatible chemical- resistant gloves. | |
| Eye protection | Tight sealing safety goggles. | |
| Skin and Body Protection | Wear suitable protective clothing. | |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice | |
| | | |

Environmental exposure controls

No special environmental precautions required.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

| liquid |
|------------|
| No data |
| No data |
| No data |
| °C No data |
| °C No data |
| °C No data |
| °C No data |
| °C No data |
| No data |
| No data |
| No data |
| No data |
| No data |
| No data |
| |

| Relative density | No data |
|------------------------|----------|
| Specific gravity | No data |
| Solubility | No data |
| Partition coefficient: | |
| n-octanol/water | No data |
| Viscosity | No data |
| Explosive properties | No data |
| Oxidizing properties | No data |
| Other information | No data. |

Section 10. Stability and Reactivity

| Reactivity | None known. |
|---------------------------------------|---|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous reaction has not been reported. |
| Conditions to avoid | No information available. |
| Incompatible materials | No dangerous reaction known under conditions of normal use. |
| Hazardous decomposition products | No data available |

Section 11. Toxicological information

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

| Acute toxicity | Data are conclusive but insufficient for classification. |
|--|--|
| Skin corrosion/irritation | Data are conclusive but insufficient for classification |
| Serious eye damage/irritation | Data are conclusive but insufficient for classification |
| Respiratory or skin sensitization | Data are conclusive but insufficient for classification |
| Specific target organ toxicity (STOT)–singleexposure | Data are conclusive but insufficient for classification |
| Specific target organ toxicity (STOT)–repeatedexposure | Data are conclusive but insufficient for classification |
| Carcinogenicity | Data are conclusive but insufficient for classification |
| Germ cell mutagenicity | Data are conclusive but insufficient for classification |
| Reproductive toxicity | Data are conclusive but insufficient for classification |
| Aspiration hazard | Data are conclusive but insufficient for classification |



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Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soilNo information available.Persistence and degradabilityNo information available.Bioaccumulative potentialNo information available.Results of PBT and vPvB assessmentThis mixture does not contain any substances that are assessed to be a PBT or a vPvB.Other adverse effectsNo information available

Section 13. Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. Transport Information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

| UN number | Not Applicable |
|--|----------------|
| UN proper shipping name Not Applicable | |
| Transport hazard class(es) Not Applicable | |
| Packing group | Not Applicable |
| Environmental hazards | Not Applicable |
| Special precautions for user | Not Applicable |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | |

Not Applicable.

Section 15. Regulatory Information

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61) This product does not contain HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Not regulated

Section 16. Other Information

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

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End of Material Safety Data Sheet