

Certificate of Analysis

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Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

| Catalog Number | BP661 | Quality Test / Release Date | 04/15/2019 | |
|-------------------|---|-----------------------------|------------|--|
| Lot Number | 191538 | Expiration Date | Jan/2022 | |
| Description | PHOSPHATE BUFFERED SALINE, POWDER CONCENTRATE | | | |
| Country of Origin | United States | | | |
| Chemical Origin | Inorganic | | | |
| BSE/TSE Comment | No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product. | | | |
| Chemical Comment | | | | |

| N/A | | | | |
|----------------------------|----------------------|---------------------------------|-----------------------|--|
| Result Name | Units | Specifications | Test Value | |
| APPEARANCE | | REPORT | White granular powder | |
| CHLORIDE | MOLES/LITER | Inclusive Between 0.136 - 0.144 | 0.143 | |
| CONDUCTIVITY AT 25 DEG C | MICROMHOS/CM | Inclusive Between 14000 - 17800 | 15540 | |
| DNASE | DETECTED/NOT DETECT. | = NOT DETECTED | NOT DETECTED | |
| WEIGHT OF SOLID IN PACKAGE | PASS/FAIL | = PASS TEST | PASS TEST | |
| PROTEASE | DETECTED/NOT DETECT. | = NOT DETECTED | NOT DETECTED | |
| RNASE | DETECTED/NOT DETECT. | = NOT DETECTED | NOT DETECTED | |
| SOLUBILITY | PASS/FAIL | = PASS TEST | PASS TEST | |
| pH OF A 1X SOLUTION | | Inclusive Between 7.3 - 7.5 | 7.46 | |

Derisa Bailey- Wyche

Quality Assurance Specialist - Certificate of Analysis Bridgewater