

Avantor Performance Materials, LLC 100 Matsonford Rd., Suite 200 Radnor, PA 19087 USA www.avantorsciences.com

Sodium Chloride

Product Regulatory Data Sheet

Section 1 – Product Information

Products Covered

<u>Brand</u>	<u>Product</u> <u>Code</u>	Product Description	MOC* code
J.T.Baker®	3618	Sodium Chloride, Granular, U.S.P.	R
J.T.Baker®	3625	Sodium Chloride, Granular, U.S.P. Multi-Compendial	R
J.T.Baker®	3627	Sodium Chloride, Granular, U.S.P., Multi-Compendial	R
J.T.Baker®	3628	Sodium Chloride, Granular, U.S.P F.C.C.	R
J.T.Baker®	3629	Sodium Chloride, Granular, U.S.P F.C.C.	R
J.T.Baker®	LP09	Sodium Chloride, Granular, U.S.P. Multi-Compendial	R
Macron Fine Chemicals™	7532	Sodium Chloride, Granular, U.S.P F.C.C.	R
Macron Fine Chemicals™	7540	Sodium Chloride, Powder, USP - GenAR®	R
Macron Fine Chemicals™	7713	Sodium Chloride, Powder, USP - GenAR®	R
Macron Fine Chemicals™	BR19	Sodium Chloride, Granular, U.S.P. USP - GenAR®	R
Macron Fine Chemicals™	BS19	Sodium Chloride, Granular USP - GenAR®	R
		*MOC = Management o	of Change

Section 2 – Manufacturing, Packaging and Release Site Information

The products in Section 1 are manufactured according to current Good Manufacturing Practices (cGMPs) as set forth by International Pharmaceutical Excipients Council (IPEC) guidelines.

A number of the cGMP produced products that are sold by Avantor Performance Materials, LLC may not be originally manufactured at our sites. However, we perform the analytical and stability testing for these products and repackage the products where applicable. With ISO and cGMP procedures, in place at our facilities we can ensure, and take complete responsibility for, the traceability and quality of the finished, packaged product that we offer.



The Original Manufacturer and address will be referenced on the Certificate of Analysis as an alpha or alpha-numeric manufacturer code rather than listing the full name and address. This practice is compliant with both ICH Q7 Good Manufacturing Guidance for Active Pharmaceutical Ingredients (APIs) and IPEC guidelines and it meets cGMP requirements. For instructions to decipher the manufacturer reference code please consult our website. Instructions can be found in the Ask Avantor Q&A Center of the customer support section of our web site or by directly linking to www.askavantor.com Keyword: Manufacturer Code.

Section 3 – Physical/Chemical Information

CAS #: 7647-14-5

Manufacturing Process: Recrystalization

Raw Material Origin: Mineral Derived

Section 4 – Regulatory Information

Compendial Compliance: Please see the current product specifications at www.avantorsciences.com.

DMF: Avantor Performance Materials LLC may hold Master File(s) for specified product codes, dependant on the country of interest. Inquire with regulatory.support@avantorsciences.com for additional details.

BSE/TSE Status: The subject materials are manufactured from raw materials that contain NO animal parts, products, and/or by-products nor do they come in contact with animal parts, products, and/or by-products.

Allergen/Hypersensitivities Information: According to the Original Manufacturer, milk, eggs, fish, crustacea, mollusks, tree nuts (Almond, Beech Nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert/Hazelnut, Ginko nut, Hickory nut, Lychee nut, Macadamia nut, Bush but, Pecan, Pine nut, Pinon nut, Pili nut, Pistachip, Sheanut, Walnut and/or Heartnut Butternut), wheat, soybeans, peanute, mustard seeds, sesame seeds, celery and/or added sulfites (> 10 ppm), gluten (in the form of wheat, barley, rye, oats, triticale), monosodium glutamate and/or hydrolyzed proteins are not known additives, by products, intermediate parts, or otherwise intentionally added during the manufacturing processes of the product.

Neither Avantor nor the Original Manufacturer produce any of the following types of products: Antibiotics, Aflatoxins, Penicillin, Semi-Synthetic Penicillins, Cephalosporins, other Beta-Lactams, Antibiotics, Cytotoxics, Steroids, Medicated Feeds, or Pesticides.



This product is manufactured using cGMP guidelines which provide controls that allow no potential for cross contamination of any allergens or other contaminants. However, this product is not tested for the presence of these or any other allergens by Avantor or the Original Manufacturer, therefore, we do not have confirmation for the absence of any allergens in the product.

GMO Information: The subject materials, including any raw materials and processing aids, are NOT subject to genetic modification.

Residual Solvents/Organic Volatile Impurities (OVI) Information: The subject materials (all lots) comply with the requirements of the ICH Q3C Residual Solvents Guideline and USP<467>Residual Solvents. No Class 1, 2, 3 or other solvents are used or produced in the manufacturing or purification of the product.

Elemental Impurities: Please see attached summary for Elemental Impurity information for listed products.

Kosher Status: Certified Kosher – Pareve for year-round use. Please refer to the customer support section of our website for our most up to date listing of Kosher products. (www.askavantor.com Keyword: Kosher)

Halal Status: J.T.Baker® 3627 is Halal Certified. Please refer to the customer support section of our website for our most up to date listing of Halal products. (www.askavantor.com Keyword: Halal)

GRAS Status: The United States Food and Drug Administration (FDA) have acknowledged that Sodium Chloride (CAS # 7647-14-5) is a Substance Generally Recognized as Safe (GRAS) in foods when used in accordance with the requirements and limitations per 21 CFR parts 182.1, 182.70, and 182.90.

Nutritional/Supplement Facts Labeling: The product codes 3628, 3629, 7532, 7713, BS19, and BR19 listed in Section 1 are bulk food chemicals that are intended for the use in manufacturing of finished food products or for products that are to be processed, labeled, and/or repacked at a site other than where it's originally processed or packed, are exempt from the Nutrient Content Evaluation and Nutrient Labeling Requirements. (21 CFR 101.9(j)(9))

Organic Status: The product codes 3628, 3629, 7532, 7713, BS19, and BR19 listed in Section 1 are not certified as organic. However, to the best of our knowledge, the product is not produced using lonizing Radiation as described in 21 CFR 179.26 or Sewage Sludge as described in 7 CFR Section 205.2.

Section 5 – Miscellaneous Product Information

Certificate of Analysis Date Format: The Manufactured Date and Expiration/Retest Date on the C of A are reported as YYYY/MM/DD from our ERP system effective April 30, 2012. For example, the Manufactured Date for October 1, 2012 would be reported as 2012/10/01.



Prior to ERP implementation, the Release Date on the C of A was reported as MM/DD/YYYY. For example, the Release Date for October 1, 2012 would have been reported as 10/01/2012.

Lot Numbering System and Batch Description: Please refer to the customer support section of our website for information concerning our lot/batch numbering system. (www.askavantor.com Keyword: Lot Number)

Batch Definition: A "batch" is a homogeneous unit of production; each batch of is from one single batch of the source supplier.

Shelf Life Information: If a product has an assigned expiration or retest period, the date will appear on the certificate of analysis. For products that do not have assigned dates please contact Technical Support through the customer support section of our website for our product stability profiles. (www.askavantor.com Keyword: Expiration)

Management of Change: Please refer to the customer support section of our website for information concerning our Management of Change program. (www.askavantor.com Keyword: MOC)

Country of Origin Statement: Country of Origin is indicated on the product Certificate of Analysis. Please contact our Trade Compliance if you require further documentation (<u>Trade.Compliance@avantorsciences.com</u>).

Storage Requirements: Please refer to the product Certificate of Analysis/Product Specifications. In the absence of specific storage conditions listed on the Avantor specification sheet or certificate of analysis, our products are to be stored in ambient conditions of temperature and humidity. We do not formally tie any specific temperature or humidity range with the 'ambient' storage designation, but an example of a common temperature interpretation is 15-30°C. Our products are also packaged to protect from the normal variation in humidity during storage and shipment. Further handling and storage information may be found in Section 7 of the product SDS sheet.

Section 6 - Revision History

Rev. 0; Oct. 1, 2007 – IPEC EIP format

Rev. 1; Oct. 1, 2008 – Section 1: added product code 3626; Section 4: updated residual solvents information

Rev. 2; Jan. 14, 2008 – Section 4: added Residual Metallic Catalysts statement; Section 7: Updated telephone # for Director Customer Service; Entire document: added "keywords" to Solv It Center links. (KES)

Rev. 3; Jan. 26, 2010 – Entire document: new letterhead and changed all references of "Solv IT Center" to "AskMBI."; Section 7: updated TS manager info. Section 4: added GRAS information. (KES) Rev. 4; Mar. 7, 2011 – Section 1: changed brand name from "Mallinckrodt" to "Macron;" Entire document: new letterhead and changed all references of "AskMBI" to "AskAvantor." Updated website links for new website; Section 7: updated contact information. (JLW)



Rev. 5; Sept. 11, 2011 – Entire Document: headquarters address changed; Section 1: added MOC code; omitted discontinued code 7576; Section 2: added GMP statement; Section 4: added add'l allergens as listed in EU Directive 2003/89/EC; updated Residual Metallic Catalysts statement; Section 5: added Nutritional, Organic, and Management of Change statements; Section 7: removed contact list table and added CS/TS contact information. (JLW)

Rev. 6; Sept. 18, 2015 - Section 1: Removed codes 3626 and 4577; Section 4: added additional allergens as listed in EU Directive 2003/89/EC; updated Residual Metallic Catalysts statement; separated Kosher/Halal status and added certification statement; Section 5: Added COA Date Format statement; (MCH).

Rev. 7; Nov. 13, 2017 - Update document to new format. Section 4: Removed Residual Metallic Catalysts and added Elemental Impurity Statement. (PT)

Rev. 8; November 16, 2018 - Entire Document: New Format. (EC)

Rev. 9; March 4, 2020 - Entire Document: Minor formatting. Updated email and website addresses from avantorinc.com to avantorsciences.com; Section 1: Added product code 3625; Section 4: Updated DMF statement. Updated GRAS Status statement to include additional regnums. (KH) Rev. 10; August 23, 2021 - Entire Document: Minor formatting. Reviewed all statements for product code 3627 in accordance with MOC-QUAL-3534; Section 1: Added product code 3618 in accordance with NPSU-2816, NPSU-2817, NPSU-2818, NPSU-2819, and NPSU-2820. Added product codes LP09, BS19, and BR19; Section 3: Updated Manufacturing Process and Material Origin from Synthesis and Chemical to more accurately align with Original Manufacturer's processes and documentation; Section 4: Updated Allergen/Hypersensitivities Information statement. Updated Elemental Impurities report to include added product codes and changed Source/Type of Excipient from Synthetic to Mineral Derived to more accurately align with Original Manufacturer's processes and documentation. Specified CAS # in GRAS Status statement. Moved Nutritional/Supplement Facts Labeling and Organic Status statements to Section 4 (previously in Section 5) and applicable product codes specified. (KH)

This electronic document is valid without a signature.

Section 7 – Contact Information

Customer Service

Phone: 1-855-282-6867 1-610-573-2600 (outside U.S.)

Fax: 1-610-573-2650

CS.Specialist@avantorsciences.com

Technical Service

Phone: 1-855-282-6867 1-610-573-2600 (outside U.S.)



Fax: 1-610-573-2650

Technical.Service@avantorsciences.com

While the above information is provided in good faith and believed to be accurate as of the date provided, Avantor Performance Materials ("Avantor") makes no representations or warranties as to the accuracy or completeness of such information. All Avantor products are subject to Avantor's terms and conditions of sale including the limitations of liability contained therein and any contrary terms and conditions are expressly rejected. As Avantor has no control over purchasers' uses of its products, Avantor expressly disclaims all liability with respect to same.

The most current revision of this document is maintained on our website. Reviews and revisions are performed as warranted due to product changes or as part of the supplier audit cycle

Trademarks are owned by Avantor Performance Materials, LLC. or its affiliates unless otherwise noted. © 2021 Avantor Performance Materials, LLC.



Avantor Performance Materials, LLC 100 Matsonford Rd., Suite 200 Radnor, PA 19087 USA www.avantorsciences.com

Material Name: Sodium Chl	oride <u>Produ</u>	ct codes: 3618, 362	25, 3628, 3627	7, 3629, 7540,	7532, 7713,	LP09, BS19,	BR19	<u>Date</u> : May 3, 2	2016
Rev. 1									
Source/Type of Excipient:	☐ Mineral;		□ Plant; □	Plant derived;	☐ Synthetic	c; □ Fermen	tation de	erived	
Other (explain):									

Elemental Impurity		Class	Likely to be Present			If Known, Please Identify the Expected Concentration /Units (or Range)	Analytical Method Used (and Limit of Detection if Available)	Comments regarding source of information (i.e.; number of lots tested, frequency of testing, process understanding, etc.)
Arsenic (inorganic)	As	1	Yes 🗌	No ⊠	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Cadmium	Cd	1	Yes 🗌	No 🖂	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Mercury (inorganic)	Hg	1	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Lead	Pb	1	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Cobalt	Со	2A	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Nickel	Ni	2A	Yes 🗌	No 🖂	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Vanadium	V	2A	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Silver	Ag	2B	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches



Elemental Impurity		Class	Likely to be Present			If Known, Please Identify the Expected Concentration /Units (or Range)	Analytical Method Used (and Limit of Detection if Available)	Comments regarding source of information (i.e.; number of lots tested, frequency of testing, process understanding, etc.)
Gold	Au	2B	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Iridium	Ir	2B	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Osmium	Os	2B	Yes 🗌	No 🖂	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Palladium	Pd	2B	Yes 🗌	No ⊠	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Platinum	Pt	2B	Yes 🗌	No ⊠	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Rhodium	Rh	2B	Yes 🗌	No 🗵	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Ruthenium	Ru	2B	Yes 🗌	No 🗵	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Selenium	Se	2B	Yes 🗌	No ⊠	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Thallium	TI	2B	Yes 🗌	No 🗵	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Barium	Ва	3	Yes 🗌	No 🗵	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Chromium	Cr	3	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Copper	Cu	3	Yes 🗌	No ⊠	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Lithium	Li	3	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches



Elemental Impurity		Class	Likely to be Present			If Known, Please Identify the Expected Concentration /Units (or Range)	Analytical Method Used (and Limit of Detection if Available)	Comments regarding source of information (i.e.; number of lots tested, frequency of testing, process understanding, etc.)
Molybdenum	Мо	3	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Antimony	Sb	3	Yes 🗌	No 🛚	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches
Tin	Sn	3	Yes 🗌	No ⊠	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches

Reference: ICH Q3D Guideline for Elemental Impurities, Step 4 version, September 2014

David L. Cugini, Sr. QA Analyst

Prepared by the Technical Service Department

Avantor™ Performance Materials, LLC



Avantor™ Performance Materials, LLC provides the information contained herein in good faith but makes no representations or warranties, either expressed or implied, including without limitation any warranties of merchantability or fitness for a particular purpose with respect to the information set forth herein or the product(s) to which the information refers. Accordingly, Avantor™ Performance Materials, LLC will not be responsible for damages resulting from the use of or reliance upon this information.

Trademarks are owned by Avantor Performance Materials, LLC or its affiliates unless otherwise noted.

© 2018 Avantor Performance Materials, LLC