

Avantor, Inc. 100 Matsonford Rd., Suite 200 Radnor, PA 19087 USA www.avantorsciences.com

Isopropyl Alcohol

Product Regulatory Data Sheet

Section 1 – Product Information

Products Covered

Brand	<u>Product</u> <u>Code</u>	Product Description	MOC [*] code		
J.T.Baker® J.T.Baker® Macron Fine Chemicals™	9037 9080 3031	Isopropyl Alcohol, U.S.P. Multi-Compendial Isopropyl Alcohol U.S.P. Isopropyl Alcohol U.S.P.	R R R		
		*MOC = Management of Chan			

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 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.

For J.T.Baker® and Macron Fine Chemicals[™] brand products, 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 the Avantor website. Instructions can be found by visiting the Ask Avantor link under the Resources tab or by directly linking to <u>www.askavantor.com</u> Keyword: Manufacturer Code. Additional information on Avantor suppliers may be available under NDA. Please reach out to the support contact in Section 7 for additional supplier information inquiries.

Section 3 – Physical/Chemical Information

CAS #: 67-63-0



Manufacturing Process: Synthesis. Additional manufacturing process information may be disclosed under NDA upon request from the support contact in Section 7.

Raw Material Origin: Chemical

Section 4 – Regulatory Information

DMF: Avantor may hold Master File(s) for specified product codes, dependent on the country of interest. Inquire with the support contact in Section 7 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: To the best of our knowledge, the allergens listed in the <u>US</u> <u>FDA</u>, <u>EU Directive 2003/89/EC</u>, and <u>TG0-91/92</u> are not known additives, by products, intermediate parts, or otherwise intentionally added during the manufacturing processes of the product.

According to the original manufacturer 1. Cereals containing gluten, namely: wheat or triticale (such as spelt and khorasan wheat), rye, barley, oats or their hybridised strains, and products thereof, 2. Crustaceans (e.g., crab, lobster, or shrimp) and products thereof; 3. Eggs and products thereof; 4. Fish (e.g., bass, flounder, or cod) and products thereof, 5. Peanuts and products thereof; 6. Soybeans and products thereof, 7. Milk and products thereof (including lactose), tree nuts, namely: almonds (Amygdalus communis L.), hazelnuts (Corylus avellana), walnuts (Juglans regia), cashews (Anacardium occidentale), pecan nuts (Carya illinoinensis (Wangenh.) K. Koch), Brazil nuts (Bertholletia excelsa), pistachio nuts (Pistacia vera), macadamia or Queensland nuts (Macadamia ternifolia), and products thereof; 12. Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre in terms of the total SO2 which are to be calculated for products as proposed ready for consumption or as reconstituted according to the instructions of the manufacturers; 13. Lupin and products thereof; 14. Molluscs and products thereof, are not known additives, by products, intermediate parts, or otherwise intentionally added during the manufacturing processes of the product.

Avantor does not produce any of the following types of products: antibiotics, penicillin, semi-synthetic penicillins, cephalosporins, other beta-lactams, 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 including aflatoxins. 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. Only the Class 2 solvent cyclohexane and Class 3 solvents are likely to be present. Cyclohexane is controlled below the USP 467 Option 1 limit. All Class 3 solvents are less than 0.5%. No other 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: For J.T.Baker® and Macron Fine Chemicals[™] brand products, kosher certification is aligned to the Avantor packaging site as indicated on the product Certificate of Analysis. Please refer to the site-specific kosher certificate available on AskAvantor for our most up to date listing of kosher products at (<u>www.askavantor.com</u> Keyword: kosher).

Halal Status: For J.T.Baker® and Macron Fine Chemicals[™] brand products, halal certification is aligned to the Avantor packaging site as indicated on the product Certificate of Analysis. Please refer to the site-specific halal certificate available on AskAvantor for our most up to date listing of halal products at (www.askavantor.com Keyword: halal).

GRAS Status: The United States Food and Drug Administration (FDA) have acknowledged that some chemicals may be considered Substances Generally Recognized as Safe (GRAS) in foods when used in accordance with the requirements and limitations per specific 21 CFR regnums. For the latest information on whether or not an Avantor product is considered GRAS, please visit the <u>Electronic Code of Federal Regulations</u>.

Section 5 – Miscellaneous Product Information

Certificate of Analysis Date Format: The Manufactured Date and Expiration/Retest Date on the Certificate of Analysis are reported as YYYY-MM-DD. For example, the Manufactured Date for October 1, 2021 would be reported as 2021-10-01.

Lot Numbering System and Batch Description: For J.T.Baker® and Macron Fine Chemicals[™] brand products, please refer to Ask Avantor 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 reach out to the support contact in Section 7 for additional stability inquiries.

Management of Change: For J.T.Baker® and Macron Fine Chemicals[™] brand products, please refer to Management of Change link under the Working with Avantor tab on the Avantor website.

Country of Origin Statement: Country of Origin is indicated on the product Certificate of Analysis. If you require further documentation, please reach out to the Trade Compliance support contact in Section 7.

Storage Requirements: Please refer to the product's Certificate of Analysis or Product Specifications. In the absence of specific storage conditions listed on its specification sheet or Certificate of Analysis, 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's SDS sheet.

Certificates of Analysis: For J.T.Baker® and Macron Fine Chemicals[™] brand products, please see the current list of product specifications using the Certificate/SDS Search tool on our website <u>here</u>.

Safety Data Sheet: For J.T.Baker® and Macron Fine Chemicals[™] brand products, please see the current product safety information using the Certificate/SDS Search tool on our website <u>here</u>.

Avantor Site Certifications: Please see the current Avantor site certifications on our website <u>here</u>.

Site Quality Overview: Avantor maintains a self-assessment modeled after IPEC guidelines which describes site and quality system information to support the manufacturing activities of this product. Please reach out to the support contact in Section 7 for a current copy of the Site Quality Overview.

Packaging Information: Please reach out to the support contact in Section 7 for current packaging specifications.

Section 6 – Revision History

Rev. 0; Oct. 1, 2007 – IPEC EIP format Rev. 1; Dec. 16, 2008 – Section 4: updated residual solvents info; Section 4: updated Director of Customer Service phone # . Rev. 2; Oct. 13, 2009 – Entire document: new letterhead and changed all references of "Solv IT Center" to "AskMBI."; Section 4: updated residual solvents info; Section 7: updated TS manager info. (JLW)



Rev. 3; April 19, 2011 – Entire document: new letterhead and changed all references of "Solv IT Center" or "AskMBI"

to "AskAvantor." Updated website links for new website; Section 7: updated contact information. Updated Mallinckrodt to Macron. Added MOC codes (MCH)

Rev. 4; Sept. 18, 2013 – Entire document: updated headquarters address and minor formatting; Section 4: added add'l 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 Management of Change information; Added COA Date Format statement; Section 7: removed contact list table and added CS/TS contact information. (MCH)

Rev. 5; July 3, 2014 – Updated Residual solvents statement per MOC-QUAL-6744 and MOC-PROC-1930 (MCH)

Rev. 6; July 21, 2017 - Update document to new format. Section 1: Remove JT Baker 0562. Section 4: Removed Metallic Caltalysts and added Elemental Impurity (PT).

Rev. 7; November 14, 2018 - Entire Document: New Format. (EC)

Rev. 8; April 22, 2020- Entire document: New format and letterhead (company name & headquarters address). Updated email and website address from avantorinc.com to avantorsciences.com. Added website link for AskAvantor; Reviewed for change in manufacturer per MOC-PROC-3254; Section 4: Updated DMF statement. Updated Residual Solvents/Organic Volatile Impurities (OVI) Information statement. Updated Elemental Impurty assessment; Section 5: Certificate of Analysis Date Format statement updated. (KH)

Rev. 9; July 18, 2023- Entire Document: Formatting. Section 2: Minor formatting to verbiage; Section 3: Minor formatting to verbiage; Section 4: Remove Compendial Compliance statement. Minor formatting to DMF, Allergen/Hypersensitivities Information, Kosher Status, Halal Status, and GRAS Status statement verbiage; Section 5: Minor formatting to Certificate of Analysis Date Format, Shelf-Life Information, Management of Change, Country of Origin, Storage Requirements statements verbiage. Added statements for Certificates of Analysis, Safety Data Sheet, Avantor Site Certifications, Site Quality Overview, Packaging Information; Section 7: Updated Contact Information; Disclaimer: Minor formatting of verbiage. (KH)

This electronic document is valid without a signature.

Section 7 – Contact Information

Technical Service

Phone: 1-855-282-6867 and 1-610-573-2600 (outside U.S.), select option 5 Email: <u>Technical.Service@avantorsciences.com</u>

Regulatory Support

Email: regulatory.support@avantorsciences.com



Trade Compliance

Email: Trade.Compliance@avantorsciences.com

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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 and managed under a validated document control system.



Avantor, Inc. 100 Matsonford Rd., Suite 200 Radnor, PA 19087 USA www.avantorsciences.com

Material Name: Isopropyl Alcohol Product codes: 3031, 0562, 9080, 9037 Date: April 22, 2020

Source/Type of Excipient:
Mineral;
Mineral derived;
Plant;
Plant derived;
Synthetic;
Fermentation derived

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, all batches below MRL
Cadmium	Cd	1	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Mercury (inorganic)	Hg	1	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Lead	Pb	1	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Cobalt	Co	2A	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Nickel	Ni	2A	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL

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Elemental Impurity		Class	Lil	kely 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.)
Vanadium	V	2A	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Silver	Ag	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Gold	Au	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Iridium	Ir	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Osmium	Os	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Palladium	Pd	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Platinum	Pt	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Rhodium	Rh	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Ruthenium	Ru	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL

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Elemental Impurity		Class	Lil	kely 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.)
Selenium	Se	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Thallium	ΤI	2B	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Barium	Ва	3	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Chromium	Cr	3	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Copper	Cu	3	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Lithium	Li	3	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Molybdenum	Мо	3	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Antimony	Sb	3	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL
Tin	Sn	3	Yes 🗌	No 🛛	Unknown 🗌	<0.05 ppm	ICP-MS (MRL=0.05 ppm)	Avg. of 3 batches, all batches below MRL



Reference: ICH Q3D Guideline for Elemental Impurities, current version.

Davil L. Cugini

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Prepared by the Technical Service Department

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