



Regulatory Data Sheet

Copyright, 2021, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

This Regulatory Data Sheet is provided as a courtesy in response to a customer request.

Document Group:	19-2786-2	Version Number:	15.01
Issue Date:	08/16/21	Supersedes Date:	07/15/21

3M™ Novec™ 649 Engineered Fluid

3M
Electronics Materials Solutions Division
3M Center, St. Paul, MN 55144-1000, USA
1-888-3M HELPS (1-888-364-3577)

RDSs are available at www.3M.com

Regulations and Industry Standards

SDS (US OSHA)

See Safety Data Sheet (SDS) for hazard and other regulatory data.

California Proposition 65

This product is an industrial product manufactured outside of California. It has not been assessed for consumer sale or use. Contact the manufacturer if more information is needed for your use.

China RoHS

This product or part does not exceed the maximum concentration values (MCVs) in China RoHS GB/T 26572-2011 (Requirements of Concentration limits for certain restricted substances in electrical and electronic products), which means that each of the homogeneous materials within this product is below the following MCVs: (a) 0.1% (by weight) for lead and its compounds, mercury and its compounds, hexavalent chromium and its compounds, polybrominated biphenyls or polybrominated diphenyl ethers; and (b) 0.01% (by weight) for cadmium and its compounds.

Conflict Minerals

Conflict Minerals, which the U.S. Securities and Exchange Commission (“SEC”) has defined as gold, columbite-tantalite (coltan), cassiterite, wolframite, or their derivatives (tin, tantalum, or tungsten), are not contained in or are not “necessary to the functionality or necessary to the production” of the above-listed product, as the term “necessary to the functionality or the production” is defined under the SEC’s Conflict Minerals Rule. 77 Fed. Reg. 56274 (Sept. 12, 2012).

EU Azo Colourant Directive

This product does not contain azo dyes which, by reductive cleavage of one or more azo groups, may release one or more of the aromatic amines listed in the Appendix I, in detectable concentrations above 30 ppm in the finished article or in the dyes parts thereof, according to the testing method established in accordance with Article 2a of this European Commission Directive 2002/61/EC (2004/21/EC).

EU REACH

This product is a chemical preparation under Regulation No 1907/2006 of the European Parliament and the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). To the best of its knowledge, 3M has pre-registered and has registered/is intending to register all substances of its chemical preparations that it currently

imports into and/or manufactures in the European Union that are in scope for (pre-)registration by 3M. It has a required safety data sheet.

EU REACH

This product, including any article that the product is composed of, does not contain at greater than 0.1% by weight a Substance of Very High Concern (SVHC) substance identified according to Article 59 of REACH. This declaration reflects the substances on the candidate SVHC list, effective July 2021.

EU RoHS

This product does not exceed the maximum concentration values (MCVs) set under EU Directive 2011/65/EU (RoHS recast/RoHS 2), as stated in Annex II to that directive. This means that each of the homogenous materials within this product does not exceed the following MCVs: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; and (b) 0.01% (by weight) for cadmium.

EU RoHS Phthalates

This product does not exceed the maximum concentration values (MCVs) for phthalates set under EU Directive 2011/65/EU (RoHS recast/RoHS 2), as amended by EU 2015/863, which applies to finished EEE after July 22, 2019 for Category 1-7, 10-11 products and after July 22, 2021 for Category 8 and 9 products. This means that each of the homogeneous materials within this product does not exceed the MCV of 0.1% (by weight) for each of the following phthalates: DEHP, BBP, DBP, and DIBP.

TSCA Section 6

This product is not known to contain 2,4,6-Tri-tert-butylphenol (CAS 732-26-3).

TSCA Section 6

This product is not known to contain Decabromodiphenyl Ether (Deca-BDE) (CAS 1163-19-5).

TSCA Section 6

This product is not known to contain Hexachlorobutadiene (HCBd) (CAS 87-68-3).

TSCA Section 6

This product is not known to contain Pentachlorothiophenol (PCTP) (CAS 133-49-3).

TSCA Section 6

This product is not known to contain Phenol, isopropylated phosphate (3:1) (PIP (3:1)) (CAS 68937-41-7).

Chemicals and/or Compounds of Interest

4,4'-Methylenebis(2,6-Diethylaniline) (CAS 13680-35-8) : Not intentionally added.

Acrylamide (CAS 79-06-1) : Not intentionally added.

Alkylphenol (AP) : Not intentionally added.

Alkylphenoethoxylates (APE) : Not intentionally added.

Antimony and (Sb) Compounds : Not intentionally added.

Aromatic Amines : Not intentionally added.

Arsenic and (As) Compounds : Not intentionally added.

Asbestos : Not intentionally added.

Azocolorants and Azodyes : Not intentionally added.

Benzenamine, N-Phenyl-, Reaction Products with Styrene and 2,4,4-Trimethylpentene (BNST) (CAS 68921-45-9) : Not intentionally added.

Beryllium and (Be) Compounds : Not intentionally added.

Bismuth and (Bi) Compounds : Not intentionally added.

Bisphenol A (BPA) (CAS 80-05-7) : Not intentionally added.

Butyl Benzyl Phthalate (BBP) (CAS 85-68-7) : Not intentionally added.

Butylated Hydroxytoluene (BHT) (128-37-0) : Not intentionally added.

Cadmium and (Cd) Compounds : Not intentionally added.

Chlorinated Paraffins, Short Chain : Not intentionally added.

Chlorinated Polyethylene : Not intentionally added.

Chlorofluorocarbons (CFCs) : Not intentionally added.

Chloroprene (Neoprene) : Not intentionally added.

Chlorosulfonated Polyethylene : Not intentionally added.

Chromium and (Cr) Compounds : Not intentionally added.

Colophony (Rosin) (CAS 8050-09-7) : Not intentionally added.

Creosote : Not intentionally added.

Crystalline Silica : Not intentionally added.
Decabromodiphenyl Ether (Deca-BDE) (CAS 1163-19-5) : Not intentionally added.
Di(2-Ethylhexyl) Phthalate (DEHP) (CAS 117-81-7) : Not intentionally added.
Di(Methoxyethyl) Phthalate (DMEP) (CAS 117-82-8) : Not intentionally added.
Dibutyl Phthalate (DBP) (CAS 84-74-2) : Not intentionally added.
Dibutyl Tin Compounds : Not intentionally added.
Diisobutyl Phthalate (DIBP) (CAS 84-69-5) : Not intentionally added.
Diisodecyl Phthalate (DIDP) : Not intentionally added.
Diisononyl Phthalate (DINP) : Not intentionally added.
Dimethyl Fumarate (DMF) (CAS 624-49-7) : Not intentionally added.
Dimethylacetamide (CAS 127-19-5) : Not intentionally added.
Di-n-Octyl Phthalate (DNOP) (CAS 117-84-0) : Not intentionally added.
Dioxins and Furans : Not intentionally added.
Dyes : Not intentionally added.
Epoxy Compounds : Not intentionally added.
Flame Retardants (not PBB or PBDE) : Contains.
Flavorings : Not intentionally added.
Formaldehyde (CAS 50-00-0) : Not intentionally added.
Genetically Modified Organisms (GMOs) : Not intentionally added.
Gluten : Not intentionally added.
Halogenated Compounds : Contains.
Halogenated Flame Retardants : Not intentionally added.
Hexabromo Cyclo-Dodecane (HBCD) : Not intentionally added.
Hexabromobenzene (CAS 87-82-1) : Not intentionally added.
Hexachlorobenzene (CAS 118-74-1) : Not intentionally added.
Hexachlorobutadiene (HCBD) (CAS 87-68-3) : Not intentionally added.
Hexavalent Chromium and (Cr+6) Compounds : Not intentionally added.
Hydrochlorofluorocarbons (HCFCs) : Not intentionally added.
Lead and (Pb) Compounds : Not intentionally added.
Materials of Human or Animal Origin : Not intentionally added.
Melamine (CAS 108-78-1) : Not intentionally added.
Mercury and (Hg) Compounds : Not intentionally added.
Musk Xylene (CAS 81-15-2) : Not intentionally added.
Natural Rubber Latex : Not intentionally added.
Nickel and (Ni) Compounds : Not intentionally added.
N-Nitrosamines : Not intentionally added.
Nonylphenol (NP) : Not intentionally added.
Nonylphenol Ethoxylates (NPE) : Not intentionally added.
Nuts : Not intentionally added.
Organochlorine Pesticides : Not intentionally added.
Organophosphate Pesticides : Not intentionally added.
Organotin Compounds : Not intentionally added.
Ozone Depleting Chemicals (ODCs) : Not intentionally added.
Pentachlorophenol (87-86-5) : Not intentionally added.
Perfluorooctanesulfonic Acid (PFOS) (CAS 1763-23-1) : Not intentionally added.
Perfluorooctanoic Acid (PFOA) (CAS 335-67-1) : Not intentionally added.
Petrochemical Fertilizers : Not intentionally added.
Phenol (CAS 108-95-2) : Not intentionally added.
Phosphorus and (P) Compounds : Not intentionally added.
Phthalates : Not intentionally added.
Polybrominated Biphenyls (PBB) : Not intentionally added.
Polybrominated Diphenylethers (PBDE) : Not intentionally added.
Polychlorinated Biphenyls (PCBs) : Not intentionally added.
Polychlorinated Naphthalenes (PCNs) (>3 Chlorine Atoms) : Not intentionally added.
Polycyclic Aromatic Hydrocarbons (PAHs) : Not intentionally added.

Polyvinyl Chloride (PVC) : Not intentionally added.
Potassium and (K) Compounds : Not intentionally added.
Radioactive Substance : Not intentionally added.
Selenium and (Se) Compounds : Not intentionally added.
Silicone : Not intentionally added.
Sulfur and (S) Compounds : Not intentionally added.
Tetrabromobisphenol A (TBBA) (CAS 79-94-7) : Not intentionally added.
Tin and (Sn) Compounds : Not intentionally added.
Tributyl Tin Compounds : Not intentionally added.
Triphenyl Tin Compounds : Not intentionally added.
Urea-Formaldehyde (UF) : Not intentionally added.
Zinc and (Zn) Compounds : Not intentionally added.

Disclaimers: The information provided in this document related to material content represents 3M's knowledge and belief, which may be based in whole or in part on information provided by suppliers to 3M. This is intended to answer commonly asked questions about 3M products and is not intended to be a comprehensive listing of all substances that may be of interest or that may be regulated in this or other 3M products, nor is it intended to be a comprehensive summary of any and all regulations that may apply to this product. Where substances are listed, their listing does not infer or constitute a judgment as to their safety, environmental or health impacts. Information is supplied upon the condition that the persons receiving the same will make their own determination as to its suitability for their purposes prior to use. Customers are encouraged to consult with legal and regulatory experts to determine applicable regulations in light of intended use of the product.

Limitation of Remedies and Liability: In the event any Product is proven not to conform with the information in this document, then to the extent permitted by law, 3M's entire liability and Buyer's exclusive remedy, will be at 3M's option either: (i) replacement of Product with a conforming product, or (ii) refund of the purchase price paid by Buyer for each non-conforming Product, within a reasonable time after written notification of said non-conformance and return of said Product to 3M. 3M shall not under any circumstances be liable for direct, incidental, special, or consequential damages (including but not limited to loss of profits, revenue, or business) related to or arising out of this certification, including, the use, misuse or inability to use the Product. Unless stated otherwise in writing, the foregoing language cannot be waived, modified, or supplemented in any manner whatsoever.