MERCK

Turn research into reality

Your Trusted Partner
for Bench to Bulk Chemicals

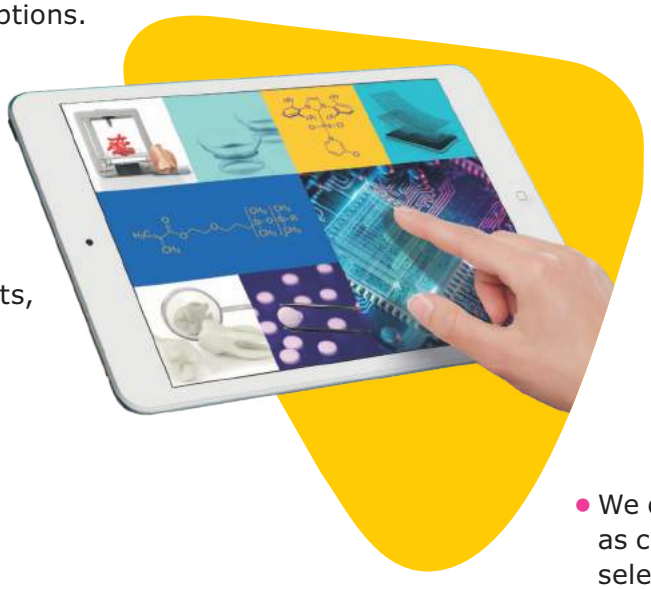
Bench to Bulk Chemistry

From Laboratory to Production

We're all about "The Scientist"

Whether in academia, the pharmaceutical industry, diagnostics or in our own R&D labs, scientific experts need to get their discoveries and standardized solutions to the world. We have always believed in helping scientists by providing the most suitable and reliable tools for their innovation.

- Driven by our technical expertise, we lead innovation with proprietary reagents, cheminformatics and unique drug delivery options.
- Our supply partners undergo rigorous screening for quality and availability so you avoid waiting for months from "aggregators".



- Meticulous monitoring of processes enables us to provide products of the highest purity, with more verification data than competitors.
- As the primary manufacturer of most critical reagents, we give you full transparency into inventory and timelines.
- We offer customized solutions – such as compound management, library selection, bulk chemicals, custom packaging and custom synthesis – to cover your needs from start to finish.

We do everything necessary to help improve your reaction yields and validation times, thus ensuring your research turns into reality.

creating More value for you

Building a reliable supply chain together.

Because we understand how important on-time delivery is to you, we have centers of excellence around the world that provide a wide range of prompt and personalized services.

Get the results you expect each and every time with our expanded offering.

Our strengths

- Breadth and value of portfolio
- Robust supply chain
- Global manufacturing sites and distribution facilities
- Regional third party distributors

Our know-how

- Innovative R&D
- Data traceability and reliability
- Complete quality and safety solutions
- Technical, quality and regulatory expertise

Our assets

- Customized manufacturing and development materials
- 24/7 technical support and best-in-class customer service
- Consistency and reliability across geographies

We don't just sell products.

We make and use them ourselves.

Whether you purchase a catalyst or synthetic reagent from us, we guarantee quality. Because everything that went into it came from us.

Merck manufacturing sites: Buchs, Switzerland and Darmstadt, Germany

Our stringent quality control procedures are applied in every step.

- Development and manufacturing of customized raw materials
- Enhanced QC and process control for critical raw materials
- Comprehensive analytical technology range including EDXRF, MALDI-TOF, Multinuclear FT-NMR, ICP-MS, LC-MS, GC-MS/MS
- Over 340 dedicated in-house quality control specialists perform more than 500,000 tests annually at 18 global locations

You are not the only one who depends on the quality of Merck products.

Our Pharmaceutical and Performance Materials divisions are built from the products we produce here in the Life Science division. We are our own largest customer, so the quality of these products is our highest priority.

Merck India Manufacturing

The Merck India facility offers custom research and manufacturing services, specializing in complex organic synthesis of niche reagents and products. This ISO-certified site provides a wide range of process development and production capabilities, in addition to effective sourcing, quality control and packaging services.

Merck manufacturing site: Bangalore India

Facility Features

Chemists interact with a wide range of organic reactions while handling complex catalogue chemical manufacturing. The Bangalore team is known for their ability to develop robust manufacturing processes and are proficient in process optimizations that support customers' projects.

The facility provides a wide range of custom manufacturing offerings in scales from milligrams to several Kg. Some of the key chemistry reaction capabilities include:

- Multi-kilo scale cryogenic reactions
- High pressure hydrogenation
- Organometallic chemistry
- Metal hydride reactions
- Labelled Isotopes/Intermediates
- Bioactive Small Molecules - Partial PROTACS

Facility Features

We offer a wide range of multipurpose manufacturing capabilities and are a proven contract manufacturing partner with a large customer base in India. Merck's Bangalore facility offers manufacturing and sourcing solutions with complete documentation support on a need basis to a number of pharmaceutical and contract research organizations (CRO) across India.

- Several access controlled labs housed in 62,000 sq ft
- Multiple Glass vessels, 200 L capacity
- 360L pilot plant, 6.1 KL scale up plant with SSR, GLR & Hastelloy reactor
- Temperature range: -78 °C to +200 °C
- Several rotary evaporators (up to 20 L)
- Expertise in high vacuum distillation with dedicated distillation suits
- Kilo scale ozonolysis and autoclave for high pressure reactions
- Microwave assisted synthesis Flow reactor

Analytical Laboratory

The Bangalore facility is equipped with a comprehensive array of analytical capabilities and supports in-house manufacturing as well as external suppliers' product evaluation and release.

Analytical capabilities include:

- Analytical research support
- Halogen combustion assays
- Qualification of reference and working standards
- Vendor audit and qualification

Instrumentation:

- FT-IR
- FT-NMR
- HPLC
- GC
- LC-MS
- CHN&S Analyser
- Polarimeter
- ICP - OES
- GC - Headspace
- Viscometer
- AAS

Quality Management

Bangalore facility is an ISO certified manufacturing site with a dedicated quality assurance (QA) team and extensive regulatory expertise.

Certificates include:

- ISO 9001:2015 Quality Management System
- ISO 14001:2015 Environmental Management System
- OHSAS 18001:2007 Occupational Health and Safety Management System

We ensure process transparency throughout development and manufacturing:

- Qualification and validation activities
- Risk assessment
- Supplier qualifications and audits

Project Management

Project managers lead multi-functional teams and serve as the single point of contact for customers to handle evaluation and execution throughout the project life-cycle.

Scalable Solutions from Discovery to Commercialization

Working in close alignment with a global bulk manufacturing facility network, the Bangalore site offers its customers the quality, dependability and flexibility to move their products to market quickly and efficiently.

- Easy access to raw materials and innovative technologies
- Global sourcing capabilities
- Global standards for IP protection
- Uncompromising EHS practices

custom synthesis from Milligram to Metric Ton scale

@ Bangalore Facility

With easy access to global sourcing of raw materials and new technologies, Bangalore's custom synthesis capabilities offer a variety of scalable products for manufacturing.

Bulk Product Offerings

Product Name	CAS No.	Application
Ligands and Catalyst		
BrettPhos	1070663-78-3	Ligand used in a palladium-catalyzed cross-coupling (Buchwald Phosphine Ligands)
RuPhos	787618-22-8	Ligand used in a palladium-catalyzed cross-coupling (Buchwald Phosphine Ligands)
Xphos	564483-18-7	Ligand used in a palladium-catalyzed cross-coupling (Buchwald Phosphine Ligands)
Sphos	657408-07-6	Ligand used in a palladium-catalyzed cross-coupling (Buchwald Phosphine Ligands)
BrettPhos Pd G4	1599466-83-7	BrettPhos Pd G4 is an N-substituted 2-aminobiphenylpalladium methanesulfonate precatalyst. It is a fourth generation (G4) Buchwald precatalys
Pd(amphos)Cl2	887919-35-9	Higly active, air-stable catalyst for Suzuki-Miyaura cross-coupling with aryl halides including 5- and 6-membered heteroaryl chlorides.
tBuXphos	564483-19-8	Ligand used in a palladium-catalyzed cross-coupling (Buchwald Phosphine Ligands)
PdXantPhos	205319-10-4	Effective catalyst for carbonylation of aryl halides
Xantphos	161265-03-8	Ligand used in a synthesis of heterocycles by palladium-catalyzed C-N cross coupling of 3-bromothiophenes with 2-aminopyridines. Also used in a ruthenium-catalyzed alkylation of active methylene compounds with alcohols.
4′,4″(5″)-Di-tert-butyldibenzo-18-crown-6	29471-17-8	As a ligand to extract radio active metals from nuclear waste
Zinc Trifluoromethanesulfonate (Zinc Triflate)	54010-75-2	Catalyst for greener amine synthesis by reductive amination with hydrogen gas
(S)-(-)-2-Methyl-CBS-oxazaborolidine 1M solution in toluene	112022-81-8	CBS (Corey-Bakshi-Shibata) Catalyst for asymmetric reduction
(R)-(+)-2-Methyl-CBS-oxazaborolidine 1M solution in toluene	112022-83-0	CBS (Corey-Bakshi-Shibata) catalyst for asymmetric reduction
Tri-tert-butylphosphonium tetrafluoroborate	131274-22-1	Ligand used in the Pd-catalyzed enantioselective α−arylation of N-boc-pyrrolidine. Favours reductive elimination

Bulk Product Offerings

Product Name	CAS No.	Application
Biochemicals & reagents		
Guanidine Thiocyanate	593-84-0	Denaturing agent and is used routinely in RNA isolation and is used as a storage buffer for whole blood samples. It inactivates nucleases and is ideal for storing and freezing fecal samples for DNA studies and also used in combination with phenol–chloroform in RNA extraction.
Guanidine hydrochloride	50-01-1	Used in RNA isolation to dissociate nucleoproteins and inhibit Rnase. At higher concentrations, it is involved in virus inactivation such as Herpes simplex virus 1 (HSV-1)
Sodium glycochenodeoxycholate	16564-43-5	Preparation of media and simulated gastric and intestinal fluids for Pharma QC applications.
Sodium glycocholate hydrate	38950-81-5	Preparation of media and simulated gastric and intestinal fluids for Pharma QC applications.
Sodium taurodeoxycholate hydrate	207737-97-1	Preparation of media and simulated gastric and intestinal fluids for Pharma QC applications.
L-Asparagine monohydrate	5794-13-8	Asparagine biosynthesis is catalyzed by glutamine-dependent asparagine synthetase in mammalian tissues. Elevated levels of free asparagine is observed in plants facing stress in the form of drought or high salt. It is also present in senescing leaves and germinating seeds.
D(+)trehalose dihydrate	6138-23-4	Used as a cryoprotectant in a variety of cell freezing media.
L-Tyrosine disodium salt hydrate	69847-45-6 (anhydrous)	Amino acid
Tris(2-carboxyethyl)phosphine hydrochloride	51805-45-9	Tris (2-carboxyethyl) phosphine hydrochloride (TCEP.HCl) is a non-volatile solid. It is a strong reducing agent, It has various biological applications such as in vitro and in vivo reduction of disulfide bonds in various peptides and proteins. TCEP is a useful chelating agent for various heavy metal ions as Zn(II), Cd(II), Pb(II), and Ni(II).
Methyl α-D-mannopyranoside	617-04-9	Methyl α-D-mannopyranoside has been used to synthesize a series of tri-and tetrahydroxylated seven membered iminosugars in a study that worked towards a stable noeuromycin analog with a D-manno configuration. It has also been used in a study to investigate the primary mannose binding site of pradimicin A.
Green reagents		
SPGS-550-M(2% w/w in water)	290309-85-2	Third Generation Designer Surfactant, in collaboration with the Lipshutz Group, is the most cost-effective surfactant to this point. Provides comparable yields for several cross-coupling reactions in room temperature.
DL-α-Tocopherol methoxypolyethylene glycol succinate TPGS-750-M, (Neat, 2 w% & 5 w% in water)	1309573-60-1	TPGS-750-M is a second generation surfactant (Lipshutz catalyst)
Building Blocks and Reagents		
3-Bromobenzaldehyde	3132-99-8	Reagent
(1R,2R)-(−)-1,2-Diaminocyclohexane	20439-47-8	As an intermediate in chemical synthesis
1,1'-Carbonyldiimidazole	530-62-1	Coupling of amino acids for peptide synthesis and as an acylation agent for the synthesis of carbamates
1,3-dibenzyloxy-2-propanol	6972-79-8	Building block in chemical synthesis
1,4-Dihydroxyanthraquinone (Quinizarin)	81-64-1	Building block in chemical synthesis and as a long range emissive ratiometric fluorescent probe for live cell imaging.

Bulk Product Offerings

Product Name	CAS No.	Application
1,8-diamino-p-menthane, Mixture Of Cis &	80-52-4	8-Diamino-p-menthane is generally used in the synthesis of various Schiff bases that are used in the preparation of coordination complexes with Cu(II), Zn(II), Cr(III), Fe(III) and Co(III) ions.It is also used as a precursor to synthesize heterocyclic Schiff base derivatives with herbicidal activity.
1-Methyl-2-pyrrolidinone	872-50-4	Belongs to the class of dipolar aprotic solvents
2-(4-chlorophenyl)-3-ethyl-5-oxopyridazine -4-carboxylate, potassium	82697-71-0	Agrochemical
2,6-bis-(5,6-di(sulphophenyl)-1,2,4-triazin -3-yl)-pyridine, sodium salt	1415648-05-3	Building block in chemical synthesis
2-Chloroacetophenone	532-27-4	Building block in chemical synthesis
2-Mesitylmagnesium bromide, 1.0m solution	2633-66-1	Grignard reagent-Used in Pharma & fine chemical industries
2-Nitrobenzenesulfonyl chloride	1694-92-4	Building block in chemical synthesis
3-Buten-2-one, stab.	78-94-4	Methyl vinyl ketone can act as an alkylating agent because it is an effective Michael acceptor.
3-Hydroxy-4-methoxycinnamic acid, predominantly trans	537-73-5	3-Hydroxy-4-methoxycinnamic acid, predominantly trans is available as white crystals. 3-Hydroxy-4-methoxycinnamic acid is isolated from the aerial part of Artemisia capillaris,
4,7-Dichloroquinoline	86-98-6	Reagent
4-Chloro-6-ethyl-5-fluoropyrimidine	137234-74-3	Intermediate used in Voricanozole synthesis
4-Hydroxybenzyl alcohol	623-05-2	Building block in chemical synthesis
6-Fluoro-2-oxindole	56341-39-0	Building block in chemical synthesis
9-Acetylanthracene	784-04-3	Used as a carrier ligand in the synthesis of fluorescent platinum(II) compounds
CHLOROFORM-D, 99.8 ATOM % D	865-49-6	Chloroform-d is a deuterated NMR solvent useful in NMR-based research and analyses.
Cholesterol–PEG 600	69068-97-9	Cholesterol is one of the important constituent of all membranes. It is made up of a hydrophobic, planar, a polar hydroxyl group, fused-ring nucleus and a short hydrocarbon tail.
Choline hydroxide solution in water & Methanol	123-41-1	Phase transfer catalyst that can be used to carry hydroxide in organic systems and is therefore characterized as a strong base.
Cinnamoyl chloride	102-92-1	Building block in chemical synthesis
Copper Ethylene Diamine	14552-35-3	Bis(ethylenediamine)copper(II) hydroxide solution is a stable complex formed by copper (Cu) ions with ethylenediamine. It is a transition metal solution that can be used as a catalyst for electrochemical reduction process
Cyanogen Bromide Solution in Acetonitrile	506-68-3	Reagent used to cleave carbon-heteroatom bonds
Cyclopropylmagnesium bromide solution	23719-80-4	Grignard reagent
Cyclopropylmagnesium Bromide, 1.0m Solu&	23719-80-4	Reagent
Decaethylene glycol mono-dodecyl ether	9002-92-0	It is used to assess diffusion of proteins and nonionic micelles in agarose gels

Bulk Product Offerings

Product Name	CAS No.	Application
Deuterium chloride, 35 wt. % solution	7698-05-7	Duetreium labelled hydrochloric acid
Diethyl ethoxymethylenemalonate	87-13-8	Diethyl ethoxymethylenemalonate can be used as a precursor to synthesize pyrimidinones,thiazolopyrimidines, thiazolopyrimidinones,triazolo [1, 5-a] pyrimidines,pyrimido [2,1-b]benzothiazoles[4] and ethyl 3-amino-5-oxoisoxazolidine -4-carboxylate derivatives.
Dimethyl methylphosphonate (DMMP)	756-79-6	Reagent used in the conversion of esters to ketophosphonates; Used in Rosuvastatin Synthesis.
Gadolinium Zirconate	11073-79-3	Material science applications
Gallium(III)oxide, 40% monoclinic (beta) and 60% rhombohedral (alpha)	12024-21-4	Material science applications
Hexadimethrine bromide	28728-55-4	It is a cationic polymer used to increase the efficiency of transduction of certain cells with retrovirus in cell culture.
L-Glutamic acid dimethyl ester hydrochloride	23150-65-4	Side chain in the synthesis of Pemetrexed, an anticancer drug
L-tyrosine Methyl Ester Hydrochloride	3417-91-2	Reagent
Methyl Myristate	124-10-7	Additive in Marine lubricant, crop protection and pest control, Flavours and fragrances
Methyl trifluoromethanesulfonate	333-27-7	Methyl trifluoromethanesulfonate is a strong methylating reagent,commonly used for the pre-methylation of polysaccharides under mild basic conditions
N,N,N′,N′-Tetraethylethylenediamine	150-77-6	N,N, N′,N′-Tetraethylethylenediamine (TEEDA) has been used in the synthesis of amine ligands using simple or double intramolecular dealkylation reaction. TEEDA exhibits selective β-lithiation during deprotonation with lithiumalkyls
N,N′-Diethylethylenediamine	111-74-0	N,N′-Diethylethylenediamine has been used as an internal standard in selective liquid chromatographic method developed for the assay of ethambutol in serum samples. It has also been used for the solvation of lithium hexamethyldisilazide
N,N-Diisopropylethylamine	7087-68-5	N,N-Diisopropylethylamine (DIPEA), also known as Hunig's base, is a sterically hindered amine. It is a non-nucleophilic base commonly employed in substitution reactions, alkylations, and amide couplings, etc. DIPEA is also used as a base in the Pd catalyzed cross-coupling reactions, which include Heck coupling and Sonagashira coupling reactions.
N,N-Dimethyldodecylamine N-oxide	1643-20-5	It is used to solubilize proteins and to study the conformation and molecular interactions of macromolecules.
Naphthalene-1,3,6-trisulfonyl chloride	67294-61-5	Preparation for thin-film composite membrane for nanofiltration
N-Iodosuccinimide	516-12-1	Highly substituted iodobenzenes prepared via an efficient 2-step process from 1,6-diynes. Used with TFA to chemoselectively hydrolyze thioglycosides to 1-hydroxyglycosides. Synthesis of vinyl sulfones from olefins and benzenesulfinic acid
Octylmagnesium Bromide, 2.0m Solution I&	17049-49-9	Reagent
p-Benzoquinone	106-51-4	It is used as a hydrogen acceptor and oxidant in organic synthesis and also serves as a dehydrogenation reagent. It is also used as a dienophile in Diels Alder reactions.
Phenylmagnesium chloride solution	100-59-4	Phenylmagnesium chloride (PhMgCl) solution is a common Grignard reagent used in the synthesis of (−)-phenserine[1] and stephacidin B.[2] It is employed in a variety of cross-coupling reactions.
Poly(ethylene glycol) average Mn 6,000	25322-68-3	It has been used to modify therapeutic proteins and peptides to increase their solubility.
Potassium phospate tribasic	7778-53-2	Reagent with very high buffering capacity that is widely used in molecular biology, biochemistry, and chromatography.
Pyridinium dichromate	20039-37-6	Oxidizing agent

Bulk Product Offerings

Product Name	CAS No.	Application
Sodium Cyanoborohydride	25895-60-7	Reductive amination reagent
Sodium dichromate dihydrate	7789-12-0	Oxidizing agent-Used in Pharma & fine chemical industries
Sodium triacetoxyborohydride (STAB)	56553-60-7	Reagent used in reductive amination of ketones and aldehydes
Sodium tert-butoxide	865-48-5	To activate first-row transition-metal pre-catalysts.As a base for the amination of aryl chlorides in the presence of a novel palladacyclic precatalyst
Sulfur trioxide pyridine complex	26412-87-3	Reactant for sulfation reactions
Sulfur trioxide trimethylamine complex	3162-58-1	Reactant for sulfation reactions
Trans-p-menth-6-ene-2,8-diol, 99%	42370-41-2	Reagent
Tricine	5704-04-1	Buffer component for separation of low molecular weight peptides
Triethylsilyl trifluoromethanesulfonate (TES triflate)	79271-56-0	Efficient triethylsilylating reagent
Trimethylsilyl trifluoromethanesulfonate	27607-77-8	Trimethylsilyl trifluoromethanesulfonate has been used in combination with boron trifluoride etherate for the copper-catalyzed asymmetric allylic alkylation (AAA) of allyl bromides, chlorides, and ethers with organolithium reagents in the presence of a chiral ligand
Trimethylsulfoxonium iodide	1774-47-6	Preferentially adds to the double bond of α,β-unsaturated esters to give cyclopropyl esters

feel free to choose

We offer optimal solutions for everyone.

Laboratory Essentials Portfolio

Premium, ultra-high quality chemicals from Reagent grade to ACS Plus, in standard or special innovative packaging.

- Acids & bases
- Salts
- Multi-application solvents

Chemical Portfolio

Extensive products and tools to support your research from laboratory to production.

- Building blocks
- Peptide synthesis reagents
- Catalysts
- Msynth ®plus products
- Organometallics
- Anhydrous solvents
- Deuterated chemicals
- Monomers
- Nanomaterials

Life Science Basics Portfolio

Multi-site manufacturing of a wide range of products, from general use quality to highly characterized and multi-application tested grades.

- Buffers
- Detergents
- Solvents for molecular biology

Looking for something special?

We offer a variety of customization options to cover all your needs.

Customized specification

Take advantage of our extended specification service

- Adding further specification parameters
- Tightening existing specification parameters

Customized packaging

Order existing products according to your needs

- Packaging size
- Filling quantity
- Container type

streamline your process

with our tailor-made services

Contract manufacturing and OEM services

Benefit from our unparalleled customization expertise

- Extensive range of chemical and biochemical synthesis capabilities
- Broad inventory of key starting materials
- Proven technology transfer
- Successful project management

Customized solutions and mixtures

Request physical treatment of existing products

- Solving (solutions)
- Mixing (read-to-use mixtures/convenience blends)

For Bulk Enquiries

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