

Pioneers in Chemistry since 1952

About Us

•MacsenLabsisapharmaceutical and chemical manufacturing organization

with its origin dating back to 1952. Headquartered in the city of Lakes, Udaipur (Rajasthan, India) we presently have various manufacturing units in and around Udaipur.

•Macsen is engaged in the manufacturing of niche Active Pharmaceutical Ingredients, Pharmaceutical application Dyes, compounds of precious and rare earth metals and other speciality inorganic compounds.

•Macsen is the only cGMP manufacturer of a complete range of pharma applications and injectable dyes. Macsen has also started new verticals of Contract Research and Custom Synthesis.

Our Leadership



Mr. Achal Agrawal

Mr. Achal Agrawal(Son of Mr. N.K Agrawal), who has studied Chemical Engineering from Pune University, is leading the organization since 2008. Under his leadership, the organization became a group of industries from a single manufacturing unit and the turnover has increased 20 times. It was his vision to grow not only in terms of business but also in terms of quality, which is why we have certifications like WHO-GMP, EU-GMP (W.C), ISO and registration with regulatory agencies like US FDA.



Mr. Darshan Asawa

Mr. Darshan Asawa is achemical engineer working with Macsen Labs since the last 16 years. He currently leads our operations and production activities. He is also responsible for laying down the company policy and guideline for quality and product safety improvements.



Ms. Sonali Agrawal

Ms. Sonali Agrawal (Daughter of Mr. N.K. Agrawal) is an MBA in marketing with a diverse background in financial services as a marketing and business development professional with 8 years of prior experience. She joined the Macsen Group in 2020 and currently leads the organization’s global sales, marketing, strategy, and new initiatives, driving its growth and diversification across international mark ets.

Our Business Units



Active Pharmaceutical Ingredients

We manufacture niche and rare-to-findAPImolecules.



Specialty Dyes & Biological Stains

Wem anufacturespecialtydyesofveryhigh purity for several specialized applications.



Inorganic fine chemicals & Metal Salts

Manufacturers of inorganic chemical compounds of rare earth & precious metals for more than 50 years.



Silver Nano Materials

We offer fully customized Silver Nanoparticles-based antimicrobial solutions to meet the specific needs of your product and its application.



Cosmetic Ingredients

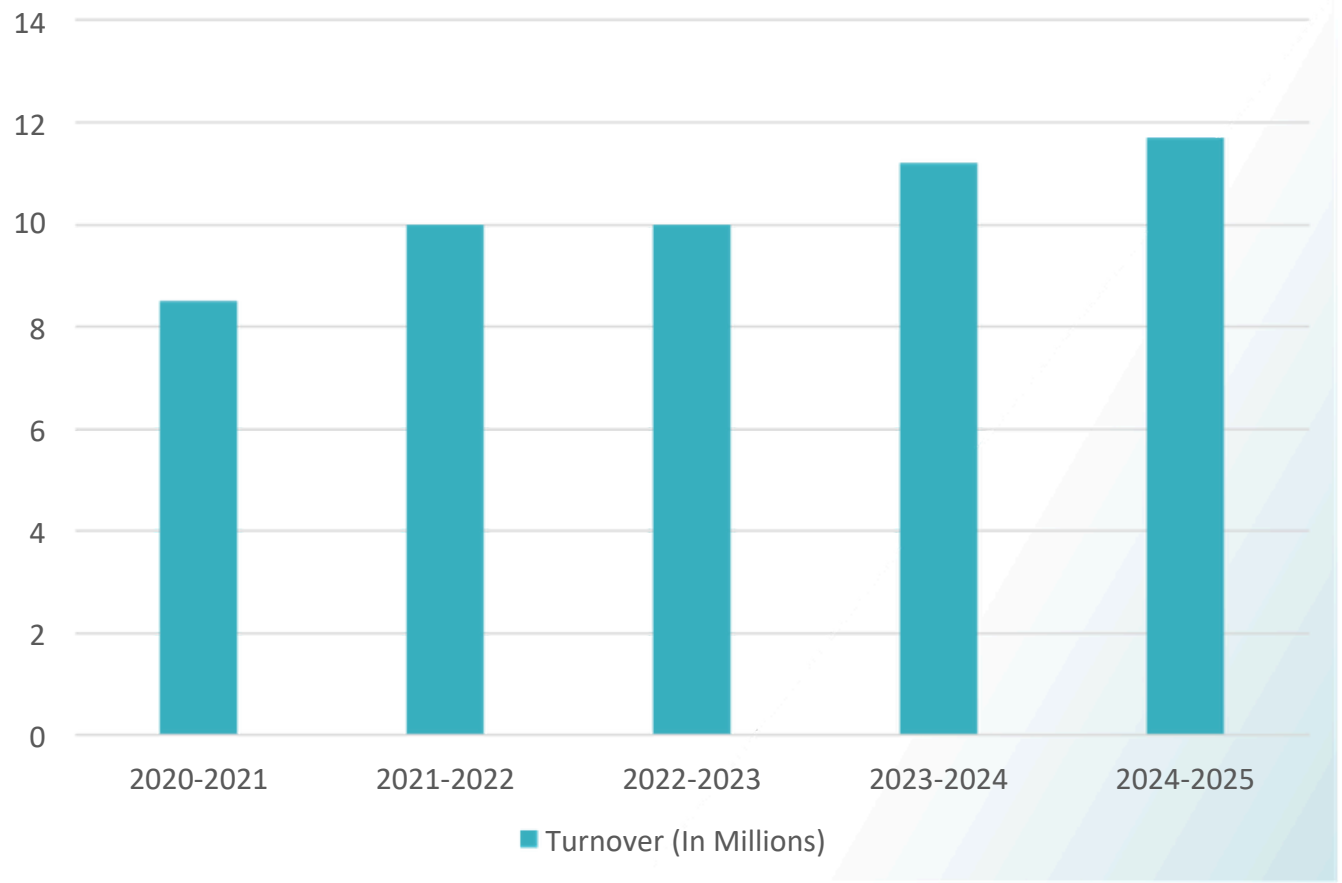
Our specialty includes ingredients used in skincare for skin-whitening, antifungal, hyperpigmentation, & other cosmetic products.



Custom Synthesis

We have the ability to synthesize organic and inorganic compounds from lab to plant scale as per customer requirements

Our Turnover in last 5 years



Units under Macsen Group

MACSEN LABS
APIs • Specialty & Fine Chemicals • Dyes

MACSEN LABORATORIES

MACSEN DRUGS

MACSEN FINE CHEM

MACSEN ENERGY
Powered by Sodium

MACSEN LABS INC.

Our R&D

Advanced R&D Capabilities

Wehave a state-of-the-art and highly equipped in-house R&D division led by experienced scientists & chemists. Our R&D team possesses the capability to synthesize a diverse array of organic and inorganic molecules from milligram to kilo scale, employing a wide spectrum of chemical reactions. Our advanced analytical techniques allow us to precisely characterize and validate the quality of our products.

R&D Equipments

- Multiple BenchtopFume Hoods for Synthesis
- Walk-in Fume Hoods
- Rotary Evaporators
- Autoclave and Hydrogenator
- Ball Mill
- Muffle Furnaces
- Vacuum Oven
- Retrosynthesis Softwares
- HPLC
- Preparative HPLC
- LC-MS/MS with PDA
- GC-MS/MS with Headspace
- UV-Vis SPECTROPHOTOMETER
- ICP -OES
- ICP-MS
- FTIR
- Argon Glove Boxes







MACSEN DRUGS

A unit of Macsen Labs

Macsen Drugs was incorporated on 7 February 2011 as a partnership Concern, with an objective to become cGMP manufacturer of high-quality and niche APIs.

Certifications

- The Firm obtained the drug manufacturing license from Drug Control Organization Rajasthan State on 26 July 2017 and thereafter started manufacturing of the API Silver sulfadiazine.
- The firm obtained WHO-GMP certification, issued by CDSCO on 18 February 2019.
- Macsen Drugs has been issued Written Confirmation for export to Europe for 7 of the APIs currently manufactured.
- Macsen Drugs Facility is registered with US-FDA. We **have filed 13 DMFs with US-FDA.**
- Macsen Drugs is GMP-certified by the TGA Australia and is recognized as a PIC/S-audited manufacturing facility.

Our Products

Our manufacturing facility is US FDA registered, TGA GMP certified, and WHO GMP certified by CDSCO.

Product Name	CAS No.	Status	DMF	US-DMF	EU-WC
Silver Sulfadiazine USP	22199-08-2	Commercialised	Yes	Yes	Yes
Methylene Blue USP/BP/EP	122965-43-9	Commercialised	Yes	Yes	Yes
Fluorescein Sodium USP/BP/Ph Eur	518-47-8	Commercialised	Yes	Yes	Yes
Selenium Sulfide USP	7488-56-4	Commercialised	Yes	Yes	Yes
Indigo Carmine USP	860-22-0	Commercialised	Yes	Yes	Yes
Selenious Acid USP	7783-00-8	Commercialised	Yes	Yes	Yes
Indocyanine Green USP	3599-32-4	Commercialised	Yes	Yes	Yes
Silver Nitrate USP/BP/IP	7761-88-8	Commercialised	Yes	Yes	To be filed
Sodium Selenite Pentahydrate EP/BP	10102-18-8	Commercialised	Yes	Yes	To be filed
Sodium Selenite Anhydrous EP/BP	72-57-1	Commercialised	Yes	Yes	To be filed

Product Name	CAS No.	Status	DMF	US-DMF	EU-WC
Trypan Blue	72-57-1	Commercial validation in 2026	Available Soon	Available Soon	-
Nitroxoline	4008-48-4	Commercialised	Available	Available	To be filed
Deferiprone EP/BP	30652-11-0	Commercialised	Available	Available	To be filed
Nicorandil IP/EP/BP	65141-46-0	Commercialised	Available Soon	Available Soon	To be filed
Viloxazine Hydrochloride	35604-67-2	Commercialised	Available Soon	Available Soon	-
Monobenzone USP	103-16-2	Commercial validation in 2026	Available	Available Soon	-
Minoxidil USP/BP/EP	38304-91-5	Commercial validation in 2026	Available Soon	Available Soon	To be filed
Eosin Y FRP-X	17372-87-1	Commercial validation in 2026	Available Soon	Available Soon	To be filed
Acriflavine Neutral BP 2008	8048-52-0	Commercialised	Under Compilation	Available Soon	To be filed
Acriflavine HCl BPC 63	8063-24-9	Commercialised	Under Compilation	Available Soon	To be filed
Levomefolate Calcium	151533-22-1	Commercial validation in 2026	Available Soon	Available Soon	-

APIs Under Development

- Isosulfan Blue *(68238-36-8)*
- Brilliant Blue G *(6104-58-1)*
- Sodium Tetradecyl Sulfate *(1191-50-0)*
- Ciclopirox Olamine *(41621-49-2)*
- Amylmetacresol *(1300-94-3)*
- 2,4-dichlorobenzylalcohol *(1777-82-8)*
- Prussian Blue *(14038-43-8)*
- Benzonatate *(104-31-4)*
- Benfotiamine *(22457-89-2)*
- Allopurinol *(315-30-0)*
- Mycophenolate Mofetil *(128794-94-5)*











A unit of Macsen Labs

MacsenLaboratoriesis a GMPand ISO-certified manufacturer and supplier of Active Pharmaceutical Ingredients, compounds of precious and rare earth metals and other speciality inorganic compounds.

Our Key Products

Product Name	CAS No.	Category
Acrifla Gv ei nnet i aHny / dCr roycsht al ol r Vi di oe d/ eN2 e- d/ 6 ri ad	8063-24-9/8048-52-0	API A
Mercurochrome/Merbromin	548-62-9	API
Eosin Y	129-16-8	API
Proflavine Hemisulphate	17372-87-1	API
Ammoniated Mercury	1811-28-5	Inorganic Metal Salt
Hematoxylin	10124-48-8	Biological Stain
Giemsa Stain	517-28-2	Biological Stain
Brilliant Green	51811-82-6	Specialty Dye
Ethylhexylglycerin	633-03-4	Cosmetic Ingredient
Basic Yellow 87	70445-33-9	Specialty Dye
Denatonium Benzoate	68259-00-7	Organic Fine Chemical
	3734-33-6	

Other areas of Development & Product Research

our dedicated research and product development efforts. Our focus encompasses a diverse range of cutting-edge fields, including **Nanomaterials**, **Pharmaceutical NIR dyes**, and **Battery Cathode Materials**.

- We strive to deliver high-quality, customized solutions that meet the standards of our clients. Our continuous innovation and rigorous R&D efforts ensure that we remain at the forefront of scientific progress, providing the foundation for future breakthroughs and industrial applications.
- Through our work, we aim to address the evolving needs of various industries and contribute to technological advancements globally.

Silver Nanomaterials

Silver Nanomaterials or Silver Nanoparticles are available in various forms and are used for their antibacterial, antiviral and antimicrobial action in multiple applications including pharmaceuticals medical devices, implants, surgicals, personal care, cosmetics, kitchenware, food packaging, automobiles, paints, plastics, sanitary wares, etc.

At Macsen Labs, we are dedicated to delivering fully customized silver nanoparticles, meticulously tailored to meet the unique requirements of our clients. Our offerings encompass a diverse array of physical forms, including liquid dispersions, colloids, re-dispersible solids, and coated nanoparticles. We provide a comprehensive range of silver concentrations, from parts per million (ppm) to percentage levels, and particle sizes spanning from 5-10 microns to 100-200 microns. This versatility ensures that our silver nanoparticles are perfectly suited for a broad spectrum of applications.

Pharmaceutical NIR Dyes

Pharmaceutical NIR dyes play a crucial role in in-vivo imaging and diagnostics, providing a non-invasive means to visualize biological processes within the body. These dyes are vital for enhancing the accuracy of medical imaging, enabling early detection and monitoring of diseases, and improving the overall effectiveness of diagnostic procedures. Some examples of FDA-approved NIR dyes include Indocyanine Green, Methylene Blue, & OTL 38 (Pafolacianine).



At Macsen Labs, we specialize in the synthesis of high-quality Pharmaceutical Near-Infrared (NIR) dyes, offering both GMP and non-GMP custom synthesis services to meet diverse research and development needs. Our expertise encompasses the development of available molecules, process optimization, and scaling up of development processes to ensure efficiency and reliability.

Battery Cathode material for Na+ Ion Battery: Prussian White

One of our newest ventures is the development of cathode materials for sodium-ion batteries. Within this initiative, we have developed "Prussian White". Prussian white ((Na2Fe[Fe(CN)6])) also referred to as Berlin White (BW) or Everett's Salt (ES), is the totally reduced and sodiated form of the pigment known as Prussian Blue. It is used as a positive electrode material in sodium-ion batteries.

The R&D team at Macsen has developed an air-stable & crystalline Prussian White consisting of high sodium content as well as the requisite particle size. With our R&D capabilities, we are also expanding into other battery cathode materials.

MACSEN ENERGY

Powered by Sodium

Macsen Energy is dedicated to the development and manufacturing of advanced sodium-ion battery materials, including Prussian White cathode material, complementary components, and the development of sodium-ion cell technology to enable scalable and cost-effective alternatives to lithium-ion batteries.

Macsen Energy: From Foundation to Future Growth

2023
Whileworking onPrussian Blue as an API Macsen identifies its reduced and sodiated form Prussian White as a promising cathode material for sodium-ion batteries.

Early - 2024
A small pouch cell fabricated in chemistry lab successfully powers an LED, confirming Prussian White's electrochemical capability.

Mid - 2024
Establishment of a dedicated electrochemical R&D lab

2025
Macsen develops a proprietary single-step, inert-gas synthesis process for highly sodiated Prussian White and files a provisional patent for the method.

2026
Establishment of Pilot Line for Battery Manufacturing

2027-2028
Transition to ton-scale production of Prussian White, partnerships for grid-scale storage and light mobility applications, and further intellectual property filings

oncelldesign and process optimization.




V-LAB
VEC SOLUTIONS



MACSEN LABS

APIs • Specialty & Fine Chemicals • Dyes

Now Offering

Custom Synthesis and Contract Research

Comprehensive Custom Synthesis Solutions

- Expertise in synthesizing **organic and inorganic compounds** from lab to plant scale as per customer requirements
- Team of talented scientists capable in **developing novel routes of synthesis** along with IP strategy
- Proficiency in screening **patent databases** for non-infringing synthesis route
- Focus on **cost-effective and eco-friendly** process development
- Access to retrosynthesis softwares, **Reaxys and SciFinder** for fast and efficient screening of synthesis routes
- Development and validation of accurate, **preciseand robustanalyticalmethods** for the analysis of synthesized compounds
- In-house analytical instruments like **HPLCs, LC-MS, LS-MS/MS, GC-MS/MS, ICP-OES, FTIR, UV Spectro**
- Full molecule characterization by **NMR,XRD, DSC, CHNSO**

Reaction Capabilities

- Cyclisation Reaction
- Reduction Reaction
- Oxidation Reaction
- Condensation Reaction
- Halogenation Reaction like chlorination, bromination
- Protection De-protection Reaction
- Nitration Reaction
- Triaryl formation Reaction
- Coupling Reaction
- Chiral Synthesis
- Fractional Distillation: Using Vacuum and without Vacuum
- Development of Purification Methods
- Precious metal recovery

Inside Macsen: Videos & Insights

- cGMPManufacturingofMethyleneBlue – Click here
- Prussian White for Sodium-Ion Batteries | Inside Macsen's R&D Facility –

Click here

Units Located at:

Macsen Drugs

F-261,262,263, RIICO Industrial Area, Gudli, Udaipur, Rajasthan, 313024, India.

Macsen Laboratories

Amba Mataki Ghati, Village Titerdi, Tehsil - Girwa,Udaipur,Rajasthan,

313002, India.

Macsen Fine Chem

B-142, G-RIICO Industrial Area, Gudli, Udaipur, Rajasthan, 313024, India.

Macsen Labs Ltd

Khasra No.4570/2018, 315, Moti Khera, Gudli, Udaipur, Rajasthan, 313024, India.

Thank You!

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