

Pioneers in Chemistry since 1952



### **About Us**

- Macsen Labs is a pharmaceutical 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 a chemical 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
Head of Sales and Marketing

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 currently heads global sales and marketing for Macsen Group since last 3 years.

## Our Business Verticals



**Active Pharmaceutical Ingredients** 

We manufacture niche and rareto-find API molecules.



Specialty Dyes & Biological Stains

We manufacture specialty dyes of very high 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.



Organic Fine Chemicals & Intermediates

We have the ability to perform a wide variety of organic synthesis reactions.



**Cosmetic Ingredients** 

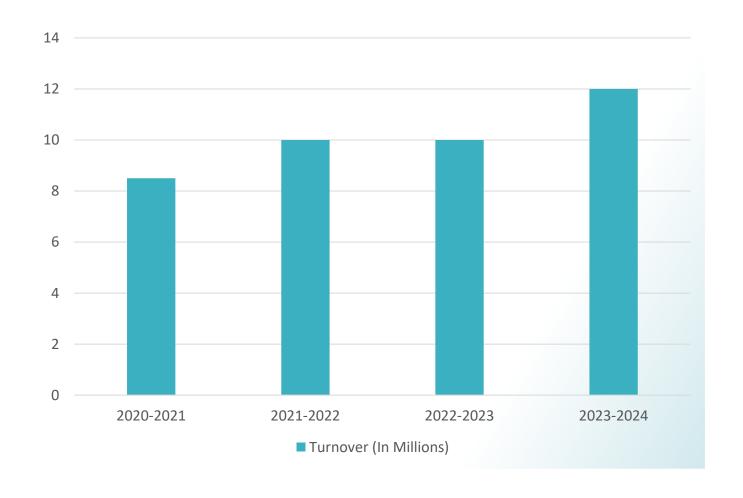
Our specialty includes ingredients used in skincare for skin-whitening, antifungal, hyperpigmentation, UV protection & other cosmetic products.



**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 4 years



## Units under Macsen Group













#### Our R&D

#### Advanced R&D Capabilities

We have 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 Benchtop Fume Hoods for Synthesis.
- Walk-in Fume Hoods
- Rotary Evaporators
- Autoclave and Hydrogenator
- Vacuum Oven
- Retrosynthesis Softwares
- HPLC
- LC-MS/MS with PDA
- GC-MS/MS with Headspace
- UV-Vis SPECTROPHOTOMETER
- ICP -OES
- ICP-MS
- FTIR



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 and EU Written Confirmation certificate for export to Europe on 18 February 2019.
- Macsen Drugs Facility is registered with US-FDA.
   We have filed 7 DMFs with US-FDA.
- Macsen Drugs has also recently obtained GMP certification from TGA Australia. With this, we are now also recognized as a PIC/S audited facility.









## Our Products

Our plant is US FDA registered, TGA GMP certified and EU-WHO GMP certified by CDSCO and presently we are manufacturing ten products under this unit.

Product Name	CAS No.	Status	DMF	US-DMF	EU-WC
Silver Sulfadiazine USP	22199-08-2	Commercialised	Yes	Yes	Yes
Methylene Blue USP	122965-43-9	Commercialised	Yes	Yes	Yes
Flourescein Sodium USP	518-47-8	Commercialised	Yes	Yes	To be filed
Selenium Sulfide USP	7488-56-4	Commercialised	Yes	Yes	To be filed
Indigo Carmine USP	860-22-0	Commercialised	Yes	Yes	To be filed
Selenious Acid USP	7783-00-8	Commercialised	Yes	Yes	-
Indocyanine Green	3599-32-4	Validation batches completed	Yes	Yes	Available Soon
Silver Nitrate	7761-88-8	Validation batches in progress	Available Soon	Available Soon	Available Soon
Sodium Selenite	10102-18-8	Validation batches in progress	Available Soon	Available Soon	Available Soon
Trypan Blue	72-57-1	Validation batches in progress	Available Soon	Available Soon	Available Soon

## New Products Launched

- Nitroxoline (4008-48-4)
- Deferiprone (30652-11-0)
- Nicorandil (65141-46-0)
- Brilliant Blue G (6104-58-1)
- Viloxazine Hydrochloride (35604-67-2)

# APIs Under Development

- Levomefolate Calcium
- Isosulfan Blue
- Ciclopirox Olamine
- Amylmetacresol
- Monobenzone
- Prussian Blue
- Sodium tetradecyl Sulfate



#### A unit of Macsen Labs

Macsen Laboratories is a GMP and 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	
Acriflavine Hydrochloride/Neutral	8063-24-9/8048-52-0	API	
Gentian/Crystal Violet	548-62-9	API	
Mercurochrome/Merbromin	129-16-8	API	
Eosin Y	17372-87-1	API	
Proflavine Hemisulphate	1811-28-5	API	
Ammoniated Mercury	10124-48-8	Inorganic Metal Salt	
Hematoxylin	517-28-2	Biological Stain	
Giemsa Stain	51811-82-6	Biological Stain	
Brilliant Green	633-03-4	Specialty Dye	
Ethylhexylglycerin	70445-33-9	Cosmetic Ingredient	
Basic Yellow 87	68259-00-7	Specialty Dye	
Denatonium Benzoate	3734-33-6	Organic Fine Chemical	

## Other areas of Development & Product Research

- At Macsen, we are committed to expanding the frontiers of science and technology through our dedicated research and product development efforts. Our focus encompasses a diverse range of cutting-edge fields, including Nanotechnology, Energy Storage, and Pharmaceuticals.
- 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.

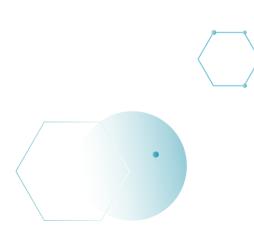


At Macsen Labs, we are dedicated to delivering fully customized silver nanoparticles, meticulously tailored to meet the unique requirements of our clients. Our offerings encompass a diverse array of physical forms, including liquid dispersions, colloids, re-dispersible solids, and coated nanoparticles. 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.

# 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 airstable & 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.



## Pharmaceutical NIR Dyes

Pharmaceutical NIR dyes play a crucial role in invivo 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.



**Now Offering** 

## Custom Synthesis and Contract Research

State-of-the-art R&D Facility equipped with the latest equipment for organic synthesis and analysis.

## Comprehensive Custom Synthesis Solutions

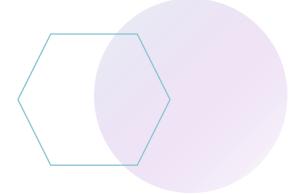
- Expertise in synthesizing organic and inorganic compounds from lab to plant scale as per customer requirements
- Team of talented scientists capable in developing novel routes of synthesis along with IP strategy
- Proficiency in screening patent databases for non-infringing synthesis route
- Focus 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, precise and robust analytical methods 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



## Macsen Gallery











### **Units Located at:**

#### Macsen Drugs

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

#### Macsen Laboratories

Amba Mata ki Ghati, Village Titerdi, Tehsil -Girwa, Udaipur, Rajasthan, 313002, India.

# N.K Synthesis Pvt Ltd

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

# Macsen Fine Chem

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

## Thank You!

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