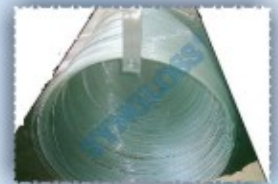


SYNGLOSS[®]

(Where Chemistry is better Understood)



About us

SYNGLOSS®
(Where Chemistry is better Understood)

Established in the year 1980, Tinchem Enterprises deals as a prominent Manufacturer and Exporter of various products. The range includes Automotive Piston Coatings, Tin Chemicals, Phosphating Chemicals, Nickel Chemicals, High Purity Chemicals, Metal Colouring Chemicals and Cattle Feed Supplements. The company is under the dynamic leadership of Mr. Arun Ralhan who is young and energetic Engineering Graduate and MBA. He is fully conversant with both Marketing and Technical needs of the users. The Production and Quality Control, the nerve centre of the company, is managed by Mr. Ashwani Ralhan a resourceful young Entrepreneur who is a Graduate in Engineering and Chemistry.

History Of The Company

Our company was incorporated in the year 1980 under the name of Tinchem Industries. Then we were dealing in diverse products that were extensively used in many industries. Our product sodium stannate was the first product launched by us to be used by the piston manufacturers of the country. Later in 1998, Tinchem Industries changed its name to Tinchem Enterprises and grown into a giant entity manufacturing a wide range of chemicals like Tin Chemicals, Metal Chemicals, Automotive Coatings and many more. Tinchem Management has taken a decision to supply Turn Key Plants in the areas of Surface Preparation and Fine Chemicals.

Infrastructure

We have spent huge capital at our manufacturing unit to ensure that we supply superior quality products to our valued clients. For this, our plant is well equipped with highly advanced and modern machines. We have in-built laboratory facility for the testing of our products' quality and standard. Due to these reasons, we are one of the most reputed Electroplating Chemicals Manufacturers in the country.

Quality Assurance

With us you are sure to get only quality and standard products due to the fact that we follow stringent quality control policy at our company. Every product goes through to in house laboratory testing under the strict supervision of our CEO Mr. Arun Ralhan. Our chemicals are remarkable for their purity and desired properties. And for all these reasons, we are one of the most reputed Tin Chemicals Manufacturers and Exporters from India.

Name of CEO	Mr. Arun Kumar Ralhan
Year of Establishment	1980
Nature of Business	Manufacturer & Exporter
Number of Employees	20 to 50
Annual Turnover	Rs. 5 to 50 Crore
Market Covered	Worldwide

Chairman's Note

SYNGLOSS®
(Where Chemistry is better Understood)



Chairman : Dr. N.K. Ralhan
Retd. Head & Prof. of Organic Chemistry
Punjabi University, Patiala

In 1980, Tinchem Industries was established with a vision to manufacture world class Surface Preparation and Surface Preservation Chemicals, contributing to persistent demand of the day to provide aesthetic appeal, surface finish and durability. Sodium Stannate was the first product launched to be used by the PISTON manufacturers of the country. The Company targeted the Automotive Components Manufacturers and ultimately achieved the goal of being a single source contributing to 90% share of Tin Coating Chemicals to the O.E. Manufacturers of Automotive Pistons and Rings.

In 1998 Tinchem Industries changed its name to Tinchem Enterprises and started manufacturing a wide range of chemicals. These are used in Bi- Metal Bearings, Wire Drawing, Paint/Powder Coating, and Pharmaceuticals & Textiles. In 2002 Tinchem Management took a decision to upgrade its systems and go in for international quality system standards ISO 9001:2000 which has been successfully achieved and is being implemented.

● Sodium Stannate

● Potassium Stannate

● Acid Tin Plating Chemicals

● Phostan

● Aluminium Phosphating

● Graphite Coating Spray

● Moly Coating Spray

● Stannous Sulphate

● Stannous Chloride

● Stannous Chloride Anhydrous

● Phosphating Chemicals

● Nickel Sulphate

● Nickel Chloride

● Nickel Carbonate

● High Purity Chemicals

● Metal Colouring Chemicals

● Cattle Feed Supplements

Sodium Stannate

SYNGLOSS®
(Where Chemistry is better Understood)

We are engaged in the manufacture and supply superior quality Sodium Stannate. We offer different compounds of Sodium Stannate like Stannic Chloride Pentahydrate, Stannous Chloride, Stannous Sulphate, Potassium Stannate etc. These compounds are used in different industrial applications like electroplating and electroless plating of tin. The Sodium Stannate compounds are prepared under the supervision of our highly qualified experts at our advanced laboratory. In addition, we are considered as one of the major Stannous Sulfate Manufacturers and Exporters in Patiala, Punjab.

Area Of Applications

Sodium Stannate, an Alkaline Tin salt, is extensively used for both Electroplating and Electroless Plating of TIN on Pistons, Bimetal Engine Bearings, Switch Gears and Allied products. It is a general purpose Salt, which can be tailored from Matt to Bright Finish.

Used For Both Electroplating And Electroless Plating of Tin

- ⊙ Tin on piston
- ⊙ Bimetal engine bearings
- ⊙ Switch gears allied products

Specifications

Characteristic	Required	Extra Pure Grade
⊙ Insoluble matter, % by mass, Max.	0.25	0.25
⊙ Stannite (as Sn), % by mass, Max.	0.1	0.1
⊙ Soluble as Sn % by mass, min.	40.0	42 +
⊙ Free Alkali % by mass, Max.	6.0(as NaOH)	1.5(as NaOH)
⊙ Lead as Pb % by mass, Max.	0.05	0.01



Potassium Stannate

SYNGLOSS®
(Where Chemistry is better Understood)

We are a major Potassium Stannate Manufacturer and Exporter in Patiala, Punjab. Our Potassium Stannate is formulated by the experts under controlled conditions to ensure proper composition. We offer Potassium Stannate in suitable leak proof packaging as per the needs of the clients. Manufactured with the use of the superior quality compounds, this Potassium Stannate is used in a number of applications.

Used For Both Electroplating And Electroless Plating of Tin

- ⊙ On Pistons
- ⊙ Bimetal engine bearings
- ⊙ Switch gears allied products

Specifications

Characteristic

- ⊙ Insoluble matter, % by mass, Max.
- ⊙ Stannite (as Sn), % by mass, Max.
- ⊙ Soluble as Sn % by mass, min.
- ⊙ Free Alkali % by mass, Max.
- ⊙ Lead as Pb % by mass, Max

Required

0.25
0.1
38.0
6.0(as KOH)
0.05

Extra Pure Grade

0.25
0.1
38.5+
1.5(as KOH)
0.01



Acid Tin Plating Chemicals

SYNGLOSS®
(Where Chemistry is better Understood)

We are a reputed Acid Tin Plating Chemicals Manufacturer and Exporter in Patiala, Punjab. Made with the use of the finest quality base chemicals, our Acid Tin Plating Chemicals are known for accuracy of the composition and proper chemical properties. Our Acid Tin Plating Chemicals are used in specific industrial applications. We offer Acid Tin Plating Chemicals at economical prices.

Used For Both Electroplating And Electroless Plating of Tin

- ⊙ Tin on piston
- ⊙ Bimetal engine bearings
- ⊙ Switch gears allied products



We offer Phostan, an Alkaline Tin salt, which is highly appreciated by our clients for its purity and chemical properties. We provide Phostan which is made by using best quality base compounds. Phostan is white to off-white in color. We pack Phostan in suitable packaging so as to ensure complete protection during storage. We are a well-established Phostan Manufacturer and Exporter in Patiala, Punjab.

Used For Both Electroplating And Electroless Plating of Tin

- ⊙ Tin on piston
- ⊙ Bimetal engine bearings
- ⊙ Switch gears allied products

TIN PLATING (PHOSTAN BASE)

Syngloss Phostan (L) / (S)

Is our latest development for Tin Plating on Pistons, Quality of Tin Plating supersedes all Alkaline and Acid Tin Plating etc.

Sequential Process can be put as follows:-

Step 1: DEGREASING:

Degreasing of the Pistons is to be done with SYNGLOSS DG 2007. DG 2000 is formulated for High Pressure Spray degreasing chemical, DG 2000 is a Neutral Degreaser works from Room Temperature to 70 °C. It works in Soak Cleaning with a higher concentration.

Concentration	1-5% by Volume
Temperature	50-65 °C
Duration	60-180 secs. (Validation Reqd.)

Step 2: Running Water Rinse .

Step 3: Hot D. M. Water Rinse.

Step 4: PISTON PREPERATION

Piston Preparation is done with mild Acidic Chemical SYNGLOSS ET 2000 for removing minor Oxidations and Activation of the aluminum surface.

Concentration	1-5% by Volume
Temperature	ambient
Duration	20- 60 secs. (Validation Reqd.)

Step 5: Running Water Rinse.

Step 6: Hot D. M. Water Rinse.

Step 7: TIN PLATING

SYNGLOSS PHOSTAN (S) / (L) is the latest immersion Tin Plating Process with enhanced Tinning Properties desired by the Global Competitors, such as;

- ⊙ Better Shine
- ⊙ Coating Thickness is $1.5 \pm .5 \mu$
- ⊙ Longer Shelf life / Higher Corrosion Resistance
- ⊙ Stronger Adhesion
- ⊙ Lower Plating Time i.e. 100 ± 10 secs.
- ⊙ Lower operating Temperature 73 ± 3 °C.

Concentration	20-25% for (L) /110-140 gms./ ltr. for (S)
Temperature	73 ± 3 °C
Duration	100 ± 10 secs.

Step 8: Running Water Rinse.

Step 9: Running Water Rinse.

Step 10: Hot D. M. Water Rinse.

Step 11: Hot Air Drying. (Must)

Aluminium Phosphating

SYNGLOSS®
(Where Chemistry is better Understood)

We bring forth best quality Aluminium Phosphating to our esteemed clients. Our Aluminium Phosphating Chemicals is the result of the hard work of our experts who make it with utmost perfection. We pack Aluminium Phosphating appropriately so that it stays protected during storage and transit. We are a major Aluminium Phosphating Manufacturer and Exporter in Patiala, Punjab.

Used For phosphate coating on Pistons, Aluminium alloy products for Corrosion resistance for bonding of graphite coating & moly coat etc.

Graphite Coating Spray

SYNGLOSS®
(Where Chemistry is better Understood)

Clients can avail from us the perfectly formulated Graphite Coating Spray. Our Graphite Coating Spray is accurately formulated by the experts in our state-of-the-art unit. Our Graphite Coating Spray is made using the best quality base chemicals to assure desired results. We are a well-established Graphite Coating Spray Manufacturer and Exporter in Patiala, Punjab.



Moly Coating Spray

SYNGLOSS®
(Where Chemistry is better Understood)

We are the foremost Moly Coating Spray Manufacturer and Exporter in Patiala, Punjab. We make our Moly Coating Spray with the use of superior quality base chemicals in our modern units. Our Moly Coating Spray is accurately formulated and has various uses. Our Molybdenum Thermal Spray Coatings is suitably packed and is very economically priced.



Stannous Sulphate

SYNGLOSS®
(Where Chemistry is better Understood)

We have made our name as a prominent Stannous Sulphate Manufacturer and Exporter in Patiala, Punjab. Our Stannous Tin Sulphate is manufactured with the use of the best quality base chemicals, virgin tin metals and provides excellent performance. Made under the expert supervision, our Stannous Sulphate has proper physical and chemical properties. Apart from this, we offer our Chloride Stannous Sulphate at the market leading prices.

Specifications

Characteristic	Required	Extra Pure Grade
⊙ Insoluble matter, % by mass,	Max. 0.5	-
⊙ Stannous Tin (as Sn), % by mass	Min 50.0	53.5+
⊙ Free Sulphuric Acid (H ₂ SO ₄), % by mass	Max. 2.0	-
⊙ Chloride (as Cl), % by mass,	Max. 0.5	-
⊙ Antimony (as Sb), % by mass,	Max. 0.1	-
⊙ Arsenic (as As), % by mass,	Max. 0.01	-



Stannous Chloride

SYNGLOSS®
(Where Chemistry is better Understood)

Clients can avail from us, the finest quality Stannous Chloride at the most affordable price. Our Dihydrate Stannous Chloride is used in various industrial applications and is highly demanded in the market for its purity and excellent properties. We provide Stannous Tin Chloride at reasonable prices. Thus, we have become a well-known Stannous Chloride Manufacturer and Exporter in Patiala, Punjab.

Specifications

Characteristic	Required	Extra Pure Grade
⊙ Insoluble matter, % by mass, Max.	0.5	-
⊙ Stannous tin (as Sn), % by mass, Min	50.0	52+
⊙ Sulphate (as So4), % by mass, Max.	2.0	-
⊙ Alkalis and other metallic impurities (as Sulphates), % by mass, Max.	0.5	-
⊙ Arsenic (as As) % by mass, Max.	0.1	-



Stannous Chloride Anhydrous

SYNGLOSS®
(Where Chemistry is better Understood)

We are the foremost Stannous Chloride Anhydrous Manufacturer and Exporter in Patiala, Punjab. Stannous Chloride Anhydrous offered by us is formulated by the experts under controlled conditions to ensure proper composition. Our Stannous Chloride Anhydrous is free from impurities and has longer shelf life. Stannous Chloride Anhydrous that we offer is available in proper packaging and is very economically priced as well.



Phosphating Chemicals

SYNGLOSS®
(Where Chemistry is better Understood)

Our company deals in high quality Phosphating Chemicals, which are widely used in different chemical related industries. We take utmost care for maintaining the quality and standard of the Phosphating Chemicals are at par with the international norms. Phosphate Coating Chemicals are available with us in various forms like Zinc phosphating chemicals, Calcium phosphating chemicals etc. In-house laboratory under the supervision of highly qualified engineers. We make the Metal Phosphating Chemicals accessible at very competitive rates. Additionally, our company is counted among the reputed Phosphating Chemicals Manufacturers in India.

These are the Following Featured Products Under Phosphating Chemicals

- ⦿ Syngloss ZP 3010
- ⦿ Syngloss ZP 3010S
- ⦿ Syngloss ZP 3010W
- ⦿ Syngloss ZP 3015
- ⦿ Syngloss ZP 3015C
- ⦿ Syngloss ZP 3030
- ⦿ Syngloss ZP 3 in 1



Nickel Sulphate

SYNGLOSS®
(Where Chemistry is better Understood)

Clients can avail from us, specially formulated Nickel Sulphate. The Nickel Sulphate is made in our state-of-the-art unit strictly with the use of virgin nickel metal under strict production standards and quality norms. Our Pure Nickel Sulphate is accurately formulated by the experts under controlled conditions. We are a major Chemical Nickel Sulphate Manufacturer and Exporter in Patiala, Punjab.

Specifications

⊙ Nickel Metal	20.5 – 22.0% (Ammend)
⊙ pH of	10% Solution 3.0-6.0
⊙ Lead % Max	2 ppm
⊙ Iron % Max	0.005
⊙ Copper % Max	0.002
⊙ Zinc % Max	0.005
⊙ Barium % Max	2 ppm
⊙ Chromium	1 ppm
⊙ Nitrate Test	-ve
⊙ Appearance	Green Crystals



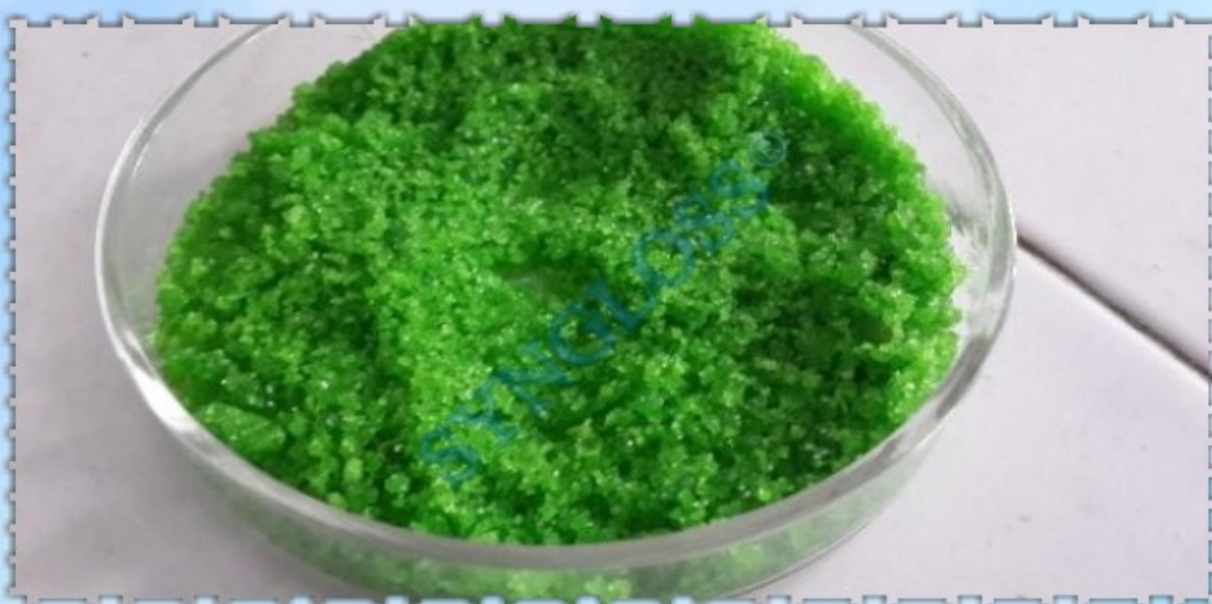
Nickel Chloride

SYNGLOSS®
(Where Chemistry is better Understood)

We have made our name as a well-established Nickel Chloride Manufacturer and Exporter in Patiala, Punjab. Our Pure Nickel Chloride is a best quality compound strictly made from virgin Nickel Metal under strict production standards and quality norms. Nickel Chloride offered by us well-tested by the experts to ensure proper chemical properties. We offer Green Nickel Chloride at market leading prices.

Specifications

⊙ Nickel Metal	24%
⊙ Lead % Max	2 ppm
⊙ Iron % Max	0.005
⊙ Copper % Max	0.002
⊙ Zinc % Max	0.005
⊙ Barium % Max	2 ppm
⊙ Chromium	1 ppm
⊙ Appearance	Green Crystals



Nickel Carbonate

SYNGLOSS®
(Where Chemistry is better Understood)

We have emerged as a prominent Nickel Carbonate Manufacturer and Exporter in Patiala, Punjab. The Nickel Carbonate offered by us is known for its quality in terms of purity and proper composition. Our Nickel Carbonate has longer shelf life and gives great performance on usage. We provide Green Nickel Carbonate in effective packaging that prevents it from getting contaminated during storage and transit.

Specifications

⊙ Appearance	Green Crystals
⊙ Colour	Pale Green
⊙ Insoluble % max	0.25
⊙ Nickel Metal %	44-48
⊙ Impurity Iron	0.02 % max.
⊙ Impurity Copper	0.05 % max.
⊙ Impurity Zinc	0.05 % max.
⊙ Impurity Lead	0.05 % max.
⊙ Impurity Cobalt	1 % max.
⊙ Sulphate	2 % max.
⊙ Nitrate Test	-ve



High Purity Chemicals

SYNGLOSS®
(Where Chemistry is better Understood)

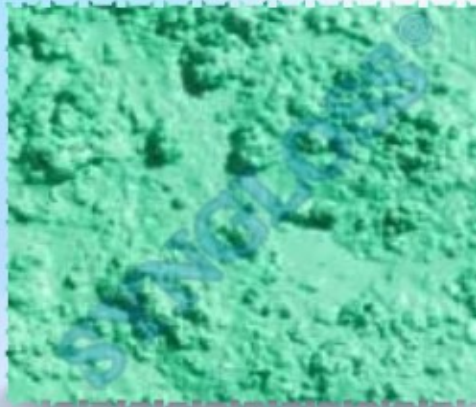
We are a well-known High Purity Chemicals Manufacturer and Exporter in Patiala, Punjab. Our High Purity Fine Chemicals are used in the Chemical Industry. The matchless quality and excellent performance of our High Purity Chemicals in relevant applications has added to its demand in the market. We offer High Purity Chemicals in suitable leak proof packaging as per the needs of the clients.



Metal Colouring Chemicals

SYNGLOSS®
(Where Chemistry is better Understood)

We are a prominent Metal Colouring Chemicals Manufacturer and Exporter in Patiala, Punjab. Our Metal Colouring Treatment Chemicals are manufactured with the use of the finest quality base chemicals and are very pure. These Metal Colouring Chemicals are used to color different metals. Metal Colour Finishing Chemicals that we offer are suitably packed and are offered at economical prices.



Cattle Feed Supplements

SYNGLOSS®
(Where Chemistry is better Understood)

After years of research, our Nutritional Experts have laid down standards for the Cattle Feed Supplements, both for the animals and poultry, to provide a balanced diet. Our company also specializes in the area of micro nutrients as recommended by nutritional experts, the world over. We are thus reckoned as one of the most prominent Cattle Feed Supplements Suppliers in India.

The Trace Elements Of Poultry Cattle Feed Supplements Are

- ⊙ Iron
- ⊙ Copper
- ⊙ Cobalt
- ⊙ Zinc
- ⊙ Selenium



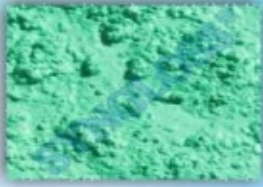
Our Clients and Network

SYNGLOSS®
(Where Chemistry is better Understood)



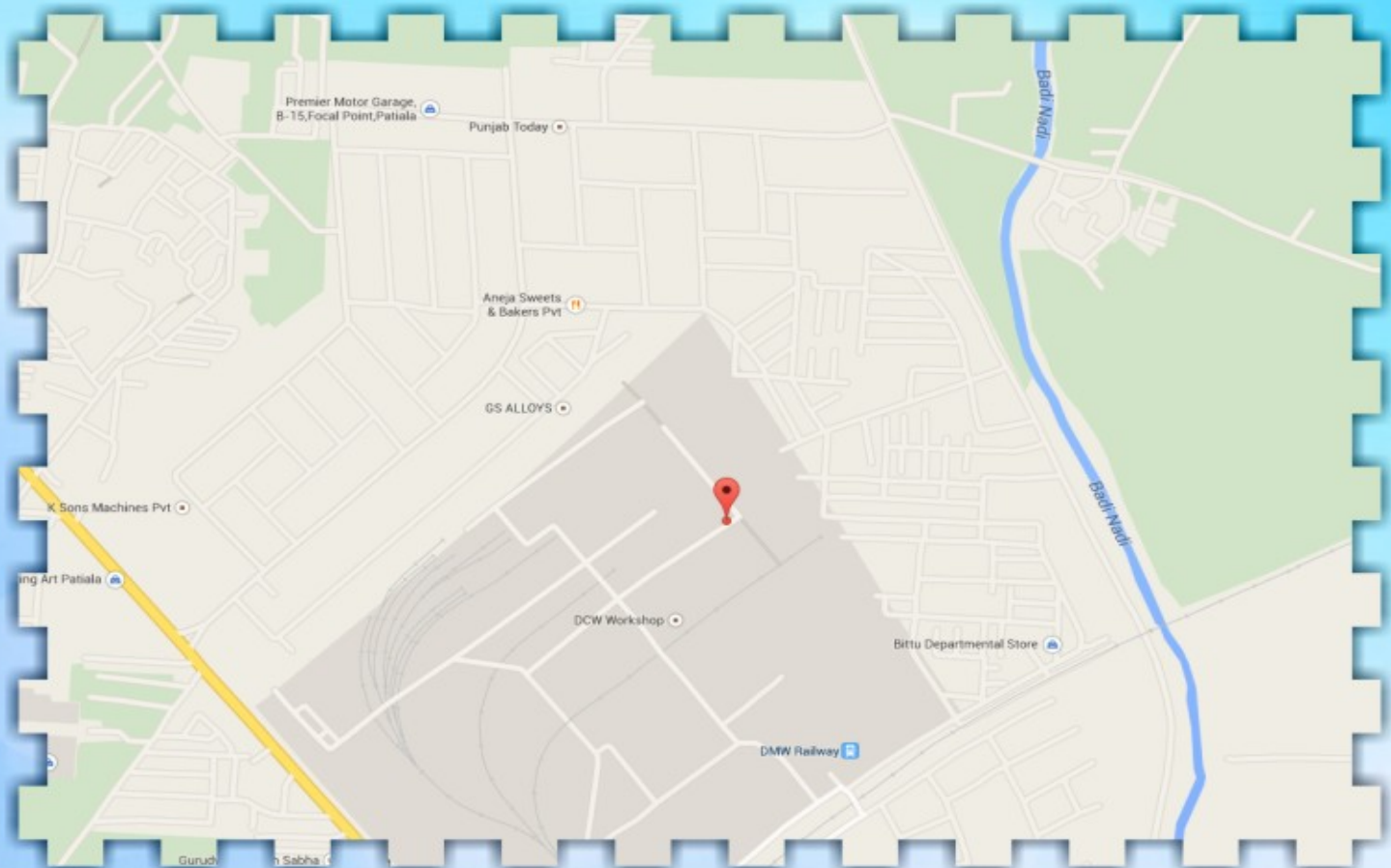
SYNGLOSS®

(Where Chemistry is better Understood)



Contact us

SYNGLOSS®
(Where Chemistry is better Understood)



Mr. Arun Kumar Ralhan

C-50, Focal Point, Patiala -147001, Punjab, India

Call Us : +919056590565

Phone : +91-175-2232582

Fax : +91-175-2232182

Mobile : +91-9872544422

Web Site : <http://www.tinchementerprises.in>