



**FACTORY PROFILE**

**INTERMEDIATES UNIT-I-ANKLESHWAR**

# MANUFACTURING FACILITIES



- **Facility cGMP compliant and according to ICH regulatory guidelines**
- **ISO 9000 and ISO 14000 certified facility**
- **Manufacturing high volume synthetic Intermediates for API production**
- **In-house R&D centre with 20 scientists including Ph.Ds.**
- **Diversified Blocks with manufacturing capabilities of producing high volume intermediates with non-infringing process.**
- **Manufacturing plant with 2,50,000 ( 250M3) litres capacity**



# MANUFACTURING FACILITIES



- Pilot plant up-to 1000 litres reactor capacities
- Undertaking contract manufacturing, Research and custom synthesis for intermediates
- Manufacturing facilities having S.S. Reactor, Glass lined reactors with heat exchangers.



# MANUFACTURING FACILITIES



- Reactor capacities range from 1 kl. to 6.5 kl. ( 1000 litres to 6500 litres)
- Separate blocks for dedicated and multipurpose reactions
- Handling huge quantities of chlorine, bromine and friedelcraft reaction



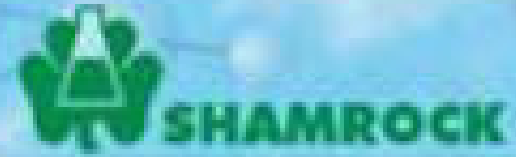
# MANUFACTURING FACILITIES



- Multipurpose plant with wide reaction capabilities.
- Temperatures from  $-40^{\circ}\text{C}$  to  $200^{\circ}\text{C}$  up-to 15 Atm of pressure.
- Total reactor volume of 2,50,000 litres of glass and SS reactors.



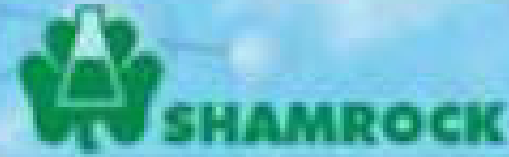
# MANUFACTURING FACILITIES



- High vacuum and fractional distillation in huge volumes
- Separate area for crystallisation and multi miling



# QUALITY CONTROL



***Our most modern laboratory comprises of two sections i.e. Quality Control and Research & Development. Both having independent setups.***

**New Quality department is setup in an area of 3000 sq. ft. for smooth functioning of Quality Control where all the Raw material of all the plants are tested before being used and all finished goods are tested before dispatch. All the modern testing instruments & equipments are purchased, received, installed and put into operation in this new lab. A team of competent, efficient & experienced quality control chemists are appointed for each block.**



## RESEARCH & DEVELOPMENT



The company has appointed highly qualified Doctors to carry out Research & Development work in a special Research & Development Center of 3000 sq. ft. The research & Development department works for continuous up-gradation of its existing products and also development of new products.

As a result of their efforts, all our products are novel synthesis non-infringing and with high purity of 99% and above (+) and a very good impurity profile.





# UTILITY FACILITIES



- **STEAM BOILERS**
- **COOLING TOWERS**
- **CHILLING PLANTS**
- **BRINE CIRCULATION**
- **HIGH TRANSMISSION (HT) LINE CONNECTION POWER WITH DIESEL GENERATOR (DG) SYSTEM**



# UTILITY FACILITIES



- **HIGH VACUUM DISTILLATION WITH STEAM INJECTORS, STORAGE TANKS OF HIGH CAPACITIES, SOLVENT / STORAGE TANKS AND SOLVENT RECOVERY SYSTEMS**
- **WAREHOUSING AND STORAGE SEPARATELY FOR ALL LIQUID & POWDER RAW MATERIALS, FINISHED PRODUCTS AND QUARANTINE PRODUCTS.**



# GMP HIGHLIGHTS



- **GMP & ICH GUIDELINE COMPLIANT**
- **PERSONNEL HYGIENE**
- **WATER SYSTEM VALIDATION**
- **PROCESS VALIDATION**
- **METHOD VALIDATION**
- **EQUIPMENT AND INSTRUMENTS VALIDATION**
- **WELL DEFINED GMP COMPLIANT STANDARD OPERATING PROCEDURES (SOP's)**



# **SAFETY HIGHLIGHTS**



- **Fire Extinguishers provided in all areas as per requirement.**
- **Well equipped Fire Hydrant System**
- **Safety Policy is designed & approved by Managing Director**
- **On Site Emergency Plan is designed & practical**
- **Well defined work permit procedures**
- **Material Safety Data Sheets of Chemicals are available**
- **Training programs conducted on regular basis (e.g. First Aid, Use of Personnel Protective Equipments, Accident Analysis, Chemical Hazards Analysis etc.)**

# REACTION CAPABILITIES



- **ALKYLATION**
- **BROMINATION**
- **CHLORINATION**
- **CHLORO SULPHONATION**
- **CONDENSATION**
- **CYCLIZATION**
- **DECARBOXILATION**
- **DIAZOTISATION**
- **DISTILLATION PLAIN**
- **ELECTROPHILIC, AROMATIC SUBSTITUTION**
- **ESTERIFICATION**
- **ETHOXYLATION**
- **FORMYLATION**

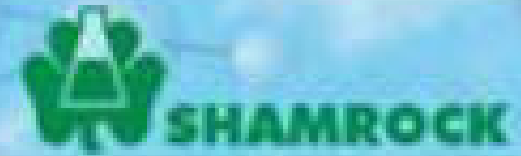


# REACTION CAPABILITIES



- **FRACTIONAL HIGH VACCUM AND HIGH TEMPERATURE DISTILLATION**
- **FRIEDEL-CRAFT REACTION**
- **GRIGNARD REACTION**
- **HYDROGENATION**
- **MANNICH REACTION**
- **METHYLATION**
- **NITRATION**
- **NUCLEOUS CHORINATION**
- **PHASE TRANSFER REACTIONS**
- **REDUCTION**
- **SOLVENT RECOVERY**
- **SULPHONATION**





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