Glindia Chemicals

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Expanding its growth horizons globally with a broader goal of expertizing in manufacturing excellence to its customers

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www.glindiachemicals.com

About Glindia

A hallmark of quality, Glindia Chemicals is one of the leading manufacturers, suppliers, and exporters of a comprehensive range of specialty chemicals and pharmaceutical intermediate. With more than 30 years of expertise, our customer leverages Glindia as a manufacturer and chemical supplier for niche, difficult-to-source materials at a price that provides real solutions.

We match customer needs with our toll manufacturing, reaction technologies, and sourcing facilities to identify the best fit for quality and performance. The company's manufacturing plant is located in ankleshwar, where its head office is also located, and it also looks after stocking and quality assurance. Our dedication to providing integrated and reliable solutions has made our chain more transparent and gained our customers' trust.

25+ years Experience
in Manufacturing
Pharmaceutical

Pharma intermediates, are the building block of active pharma intermediates. Pharmaceutical intermediate is used by the manufacturers of pharma as well as biopharma companies. With our knowledge and expertise, we can understand client's requirements and synthesize the right formulations for the development of their products. Also for the existing product, we choose contract processes hence mitigating the time line from process to execution of the products.

Our impeccable quality and services make our product versatile in different industries help us to partner with global industries.

Glindia chemicals new facility offer new technologies for custom reaction for complicated processes and advanced pharmaceuticals. Ammonification is the core expertise of Glindia .

Our focus is on improving product quality and yields of the existing and new products as well.

1. Halogenation technology: Halogenation technology introduces halogen atoms into organic molecules, modifying their chemical properties. It is widely used in pharmaceuticals and agrochemicals to enhance biological activity and stability.

2. Grignard chemistry: Grignard chemistry uses Grignard reagents (organomagnesium compounds) to form carbon-carbon bonds. This versatile method is essential for creating complex molecules from simpler ones. (Currently at Pilot scale)

3. Oxidation Reduction Technology: Oxidation-reduction technology involves electron transfer reactions to change the oxidation state of compounds. These reactions are crucial in energy production, waste treatment, and synthetic chemistry.

4. Friedel Crafts Technology: Friedel-Crafts technology involves the alkylation or acylation of aromatic compounds using a Lewis acid catalyst. This method is pivotal in the synthesis of aromatic ketones and hydrocarbons.

5. Heterocyclic synthesis: Heterocyclic synthesis focuses on creating ring structures containing at least one non-carbon atom (heteroatom). These compounds are crucial in pharmaceuticals and agrochemicals for their diverse biological activities.

6. Reduction Technology: Reduction technology encompasses methods for adding electrons to molecules, typically reducing their oxidation state. It is widely used in organic synthesis for hydrogenation and converting carbonyl compounds to alcohols.

7. Suzuki coupling chemistry: Suzuki coupling forms carbon-carbon bonds between organoboron compounds and halides using palladium catalysts. This reaction is vital for constructing biaryl structures, common in pharmaceuticals and materials science.

8. Chiral chemistry: Chiral chemistry studies molecules with non-superimposable mirror images, crucial for developing drugs with specific desired effects. Enantioselective synthesis ensures the production of a single, active enantiomer.

9. Sonogashira technology: Sonogashira technology couples terminal alkynes with aryl or vinyl halides in the presence of a palladium catalyst. This method is essential for synthesizing complex molecules, including pharmaceuticals and organic materials.

10. Nitration chemistry: Nitration chemistry introduces nitro groups into organic molecules using nitrating agents. This reaction is critical for synthesizing explosives, dyes, and intermediates in pharmaceutical and agrochemical industries.

11. Cyanation chemistry: Cyanation chemistry involves introducing a cyano group (-CN) into organic compounds, often using cyanide salts. This process is fundamental for synthesizing nitriles, key intermediates in pharmaceuticals and fine chemicals.

12. Aldol condensation: Aldol condensation forms carbon-carbon bonds between aldehydes or ketones with α-hydrogen atoms, producing β-hydroxy carbonyl compounds. This reaction is crucial for synthesizing complex molecules in organic chemistry. (Currently at Pilot scale)

13. Cannizzaro reaction: The Cannizzaro reaction involves the base-induced disproportionation of non-enolizable aldehydes, yielding an alcohol and a carboxylic acid. This reaction is important for converting simple aldehydes into useful bifunctional products.

14. Gabriel Phthalimide synthesis: The Gabriel Phthalimide synthesis produces primary amines from phthalimide and alkyl halides, followed by hydrolysis. This method is widely used for preparing pure primary amines in organic synthesis.

15. Gattermann Reaction: The Gattermann reaction involves the formylation of aromatic compounds using hydrogen cyanide and a Lewis acid catalyst. This method is important for introducing formyl groups into aromatic rings, key in synthesizing aldehydes. (Currently at Pilot scale)

16. Gattermann Koch reaction: The Gattermann-Koch reaction synthesizes aromatic aldehydes by reacting arenes with carbon monoxide and hydrogen chloride in the presence of a Lewis acid. This reaction is valuable for formylating aromatic compounds. (Currently at Pilot scale)

17. Sandmeyer Reaction: The Sandmeyer reaction replaces an amino group in aromatic compounds with a halogen or other substituents using copper(I) salts. This method is crucial for introducing functional groups into aromatic rings. (Currently at Pilot scale)

18. Stephen Reduction Reaction: The Stephen Reduction involves converting nitriles to aldehydes using stannous chloride and hydrochloric acid. This reaction provides a straightforward route to aldehydes from readily available nitriles.

19. Wurtz reaction: The Wurtz reaction couples two alkyl halides in the presence of sodium metal, forming a new carbon-carbon bond. This method is useful for synthesizing larger alkanes from smaller alkyl halides. (Currently at Pilot scale)

20. Wurtz Fittig reaction: The Wurtz-Fittig reaction couples an aryl halide with an alkyl halide in the presence of sodium metal. This reaction is used to form carbon-carbon bonds between aromatic and aliphatic compounds. (Currently at Pilot scale)

21. Fischer esterification: Fischer esterification forms esters by reacting carboxylic acids with alcohols in the presence of an acid catalyst. This reaction is widely used for synthesizing esters in both laboratory and industrial settings.

22. Hoffmann bromamide reaction: The Hoffmann bromamide reaction converts amides to primary amines using bromine and an alkali. This reaction is valuable for producing primary amines from readily available amides.

23. Fischer indole synthesis: Fischer indole synthesis transforms phenylhydrazines and ketones or aldehydes into indoles under acidic conditions. This method is significant for producing indole derivatives, important in pharmaceuticals and natural products.

24. Diels Alder reaction mechanism: The Diels-Alder reaction forms six-membered rings by [4+2] cycloaddition of a diene and a dienophile. This reaction is a powerful tool in synthetic organic chemistry for constructing complex cyclic structures. (Currently at Pilot scale)

25. Michael addition mechanism: The Michael addition involves the nucleophilic addition of a carbanion to an α,β-unsaturated carbonyl compound. This reaction is crucial for forming carbon-carbon bonds in the synthesis of complex molecules. (Currently at Pilot scale)

26. Heck reaction: The Heck reaction couples aryl halides with alkenes in the presence of a palladium catalyst. This method is important for forming carbon-carbon bonds and constructing substituted alkenes. (Currently at Pilot scale)

27. Mannich reaction mechanism: The Mannich reaction forms β-amino carbonyl compounds by condensing an aldehyde or ketone with an amine and a carbonyl compound. This reaction is vital for synthesizing compounds with multiple functional groups. (Currently at Pilot scale)

28. Hydroboration oxidation reaction: Hydroboration-oxidation converts alkenes to alcohols via addition of borane followed by oxidation. This method provides anti-Markovnikov alcohols with high regioselectivity and stereospecificity. (Currently at Pilot scale)

29. Claisen condensation: Claisen condensation forms β-keto esters or β-diketones by reacting esters with strong bases. This reaction is essential for forming carbon-carbon bonds in the synthesis of complex organic molecules. (Currently at Pilot scale)

30. Miscellaneous Technologies : Numerous further reaction are the part of Glindia chemicals capabilities for multi stage synthesis. Manu such reaction are in addition to the main reaction.

Glindia Chemicals new (GMP) plant is a state-of-the-art facility designed to ensure the highest standards of quality and safety in the production of chemical products. Adhering strictly to regulatory guidelines, the plant implements rigorous process controls, validation procedures, and quality assurance protocols to prevent contamination, ensure consistency, and maintain product integrity. Advanced automation and real-time monitoring systems are integrated to streamline operations, minimize human error, and enhance traceability. By fostering a culture of continuous improvement and compliance, our new GMP plant not only meets the stringent requirements of global regulatory bodies but also instills confidence in customers, ensuring the delivery of superior, reliable chemical products for various industrial and pharmaceutical applications.

Our Cleanroom Facilities Include air handling units (AHUs) and laminar airflow units to maintain controlled, contaminant-free environments. Key equipment includes.

1. Reactors: Stainless steel and glass-lined reactors for conducting chemical reactions under controlled conditions.
2. Centrifuges: For solid-liquid separation, crucial in intermediate and final purification steps.
3. Filters and Filtration Systems: Including filter presses, cartridge filters, and HEPA filters, essential for purifying and ensuring the sterility of products.
4. Dryers: Such as vacuum dryers, tray dryers, and rotary dryers for drying solids and intermediates under controlled conditions.
5. Crystallizers: To facilitate the crystallization of APIs from solutions, ensuring purity and uniform particle size.
6. Mixers and Blenders: For homogenizing ingredients and intermediates, ensuring consistent product quality.
7. Milling and Granulation Equipment: For particle size reduction and forming granules, aiding in downstream processing.
8. Distillation Units: For purifying solvents and separating components based on boiling points.
9. Chromatography Systems: High-performance liquid chromatography (HPLC) and gas chromatography (GC) systems for purification and quality control.
10. Autoclaves and Sterilizers: For sterilizing equipment, components, and final products, ensuring compliance with aseptic processing requirements.
11. Quality Control (QC) and Analytical Instruments: Including spectrophotometers, titrators, and stability chambers for thorough testing and validation of APIs.
12. Storage Tanks and Vessels: For storing raw materials, intermediates, and finished products under appropriate conditions.

These pieces of equipment collectively ensure that the manufacturing process meets stringent GMP requirements, producing high-quality APIs safely and efficiently.

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