ADSD GROUP

ADSD Adsorbents & Specialities Private Limited

Delivering Adsorbents & Speciality Chemical Excellence from India to the World.









OUR COMPANY

ADSD Adsorbents & Specialities Private Limited is a part of the ADSD Group, headquartered in Noida/Delhi (NCR), India. ADSD Adsorbents & Specialities serves as the flagship entity of the Group, specializing in the manufacturing of Activated Carbon and Coconut Shell derivatives, along with supply chain solutions for specialty chemicals.

ADSD Adsorbents & Specialities brings extensive expertise and a strong legacy in the manufacturing of Activated Carbon and Coco-char products. Backed by deep technical know-how in sourcing, processing and converting coconut shells into high-performance Activated Carbon, the company operates a state-of-the-art in-house manufacturing facility designed to serve diverse industries and applications.

ADSD excels in meeting the requirements of both domestic and international markets with reliable and high-performance Activated Carbon solutions.







OUR MANAGEMENT

ADSDGroup ispromotedby Mr. Satish Kumar, MD & CEO — a dynamic and hard-core Industry Professional with over 20 years of experience in International Sales & Marketing, Manufacturing of Activated Carbon, Project Management and Execution of Large-Scale EPC Projects across Chlor Alkali, Sulphur Based Plants, Energy, Water and Oil & Gas Projects. Mr. Kumar brings remarkable expertise in executing bulk shipments for Activated Carbon, Chemicals, Fertilizers and Commodities — driving ADSD with a global vision to address the requirement of Global Clients.



MISSION

- We are committed to building strong, long-term partnerships with our customers and suppliers globally, ensuring exceptional service, ethical business practices and fostering sustainable growth for all stakeholders.
- To ensure a continuous and reliable availability of our complete product range & services in International & Domestic Market.
- To provide our clients with innovative and customized solutions that enhances their business performance and operational efficiency.



VISION

To become a Globally Recognized Business House by delivering innovative and sustainable solutions to Domestic and International Clients across Engineering & EPC Business, Activated Carbon Manufacturing Business and Chemicals & Supply Chain Business, creating long-term value through innovation and excellence.



CORE VALUES

- Collaboration and Partnership
- Excellence in Engineering & Project Execution
- Competencies in Manufacturing
- Reliability, Safety & Sustainability
- Excellence in Application Performance
- Quality & Delivery Commitment



OUR BUSINESSES

ACTIVATED CARBON BUSINESS

ADSD Adsorbents & Specialities is a pioneer Manufacturer, Supplier and Exporter of high-performance Activated Carbon and Adsorbent Products, delivering world-class purification and filtration solutions globally. With a rich legacy in Activated Carbon manufacturing, ADSD offers a comprehensive range of Granular , Powdered and Pelletized Activated Carbon serving industries including Water Treatment, Air Purification, Pharmaceuticals, Food & Beverage, Gold Recovery and Oil & Gas. Backed by stringent quality standards and deep global market expertise, ADSD delivers reliable, premium quality Activated Carbon products to its esteemed clientele — from India to the World.



SUPPLY CHAIN BUSINESS

ADSD is a renowned Manufacturer, Supplier, Exporter & Distributor of Basic & Speciality chemicals and also undertakes the Supply and Distribution of Basic Chemicals, Fertilizers & Agrochemicals, Speciality Chemicals, Mining Chemicals, Polymers & Petrochemicals, Paints and Solvents. The Supply Chain Division has been serving its global Clients from last 18 years with regular shipment of quality products as per the Process requirements & Instengent quality compliances.



ENGINEERING AND EPC BUSINESS

ADSD is renowned Engineering & EPC Contractor having core strength in managing and executing the complex industrial projects right from concept to commissioning and handing over by covering all aspects of Project Execution. As an integrated EPC contractor providing end-to-end solutions for large-scale projects right from Technology Selection, Basic Design, Detailed Engineering, Project Management, Procurement and Logistics ,Fabrication, Site Erection and Construction, Logistics and Pre-Commissioning, Commissioning, Start-up, Performance Guarantee Test Runs and Handing over the commercial Production..



ACTIVATED CARBON BUSINESS

ADSD holds deep domain expertise in the Activated Carbon industry, offering Granular Activated Carbon (GAC), Powdered Activated Carbon (PAC), Pelletized Activated Carbon, and Specialty Adsorbent Materials for diverse applications.

Coconut Shell Based



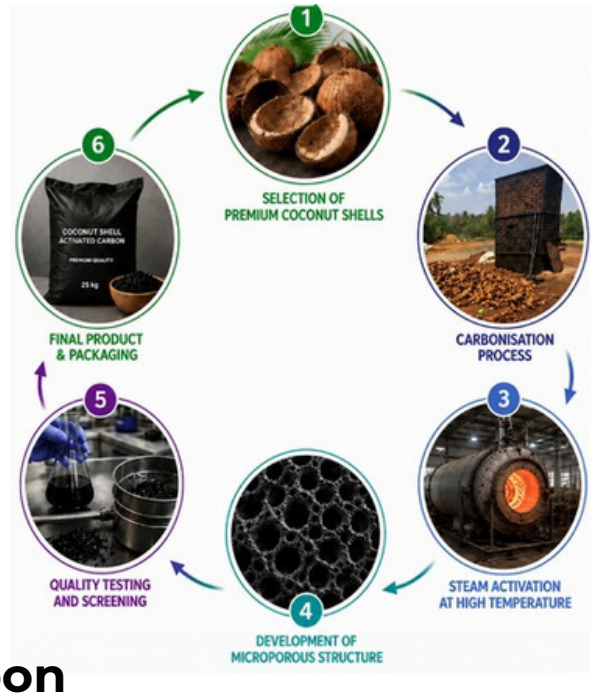
Adsorbents & Filtration Media



By leveraging our state-of-the-art manufacturing capabilities and collaborating with esteemed partners across India and globally, we serve industries including Water & Wastewater Treatment, Air Purification, Pharmaceuticals, Food & Beverage, Gold Recovery, Chemical Processing, and Oil & Gas. Our focus on premium quality, consistent supply, and application-driven solutions ensures the right Activated Carbon grade for every requirement.

Manufacturing Process

ADSD Adsorbents Coconut Shell Activated Carbon is manufactured using carefully selected premium coconut shells sourced sustainably for superior quality. The shells undergo a controlled carbonisation process to produce dense carbon char. This is followed by steam activation at 800–1000°C, creating a highly developed microporous structure for efficient adsorption. Each batch is screened, graded and quality tested to meet international standards. This ensures high purity, consistent quality and reliable performance across diverse industrial applications.



Why Coconut Shell Activated Carbon

Coconut Shell is one of the best raw materials for making Activated Carbon - not by chance but its structure gives superior performance compared to coal or wood.

- **High Miroporosity (better adsorption)** After Activation, cocnut shell develops more microspores, removing small molecules and high efficiency and adsorption.





- **Eco-Friendly Source:** Produced from renewable coconut shells, making it a sustainable and environmentally responsible choice.

- **Higher Hardness & Durability:** Ensures minimal attrition and longer operational life, especially in demanding applications like gold recovery.





- **Regenerable & Cost-Effective:** Can be thermally reactivated, improving lifecycle economics.

We don't just manufacture activated carbon — we deliver a promise of **purity, performance, and reliability.**

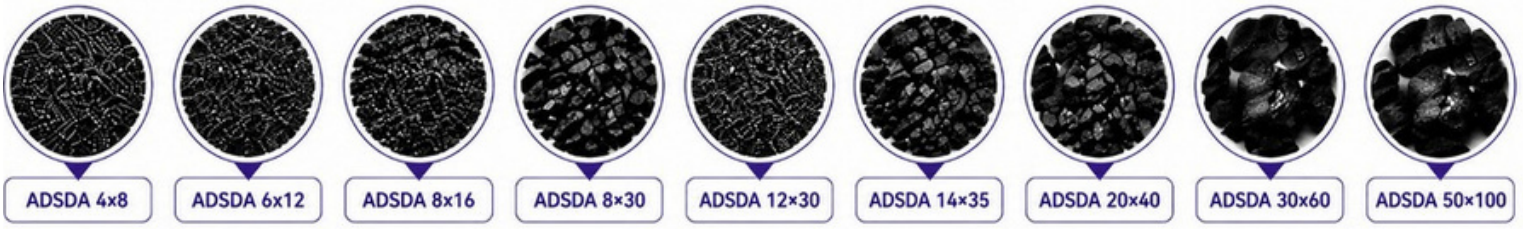
ACTIVATED CARBON TYPES

A. Granular Activated Carbon (GAC):

Granular Activated Carbon has larger particle size and lower external surface area compared to powdered carbon, making it ideal for gas and vapour adsorption due to faster diffusion. It is widely used in gold recovery and water treatment applications.



GAC Product Size





B. Powdered Activated Carbon (PAC)

Powdered Activated Carbon (PAC) is a fine and highly porous adsorbent used for rapid liquid-phase treatment applications. It is directly added into liquids to remove color, odor, organic contaminants and trace impurities. Due to its high surface area and fast adsorption rate, PAC is widely used in water treatment, food processing and chemical purification processes.

C. Extruded Activated Carbon (Pellets)

Extruded Activated Carbon (Pellets) is manufactured from coconut shell through high-temperature steam activation under strict quality control. It is highly effective for air and gas purification, solvent recovery and evaporative emission control. Pellet activated carbon is widely used for VOC removal, vapour phase treatment, soil venting and removal of contaminants such as ammonia, sulphur compounds, mercury and amines.



Activated Carbon Solution for Gold Recovery

SustainablyProducedCoconutShell Activated CarbonforEnhancedGoldRecovery

ADSD Adsorbents offers premium Coconut Shell–based Activated Carbon engineered for CIP, CIL and CIC gold recovery processes. Designed with high adsorption efficiency, superior strength and low attrition loss, it maximizes gold recovery while reducing operating costs and extending carbon life.



Gold Cyanidation Process

Gold cyanidation is an efficient gold extraction process where crushed ore is treated with a dilute cyanide solution to dissolve gold. Oxygen is added to improve leaching performance and accelerate recovery. The dissolved gold is then adsorbed onto activated carbon using CIP, CIL, or CIC processes. Finally, the loaded carbon undergoes elution and refining to produce high-purity gold with reliable and high recovery efficiency.



TECHNICAL ADVANTAGES OF ADSD ACTIVATED CARBON



Methods Used in Gold Cyanidation Process:

A. Carbon-in-Pulp (CIP)

Gold is leached using cyanide and the dissolved gold is adsorbed onto activated carbon in separate tanks for better recovery. Counter-current carbon flow improves loading efficiency, while the carbon is regenerated and reused for economical operation.



Benefits: High recovery efficiency, better process control and optimized carbon utilization. **Best Suited For:** High-grade ores and large- scale gold processing operations.

B. Carbon-in-Leach (CIL)

CIP uses separate leaching and adsorption stages, where activated carbon captures dissolved gold. Counter- current carbon flow improves recovery and carbon is regenerated for reuse.

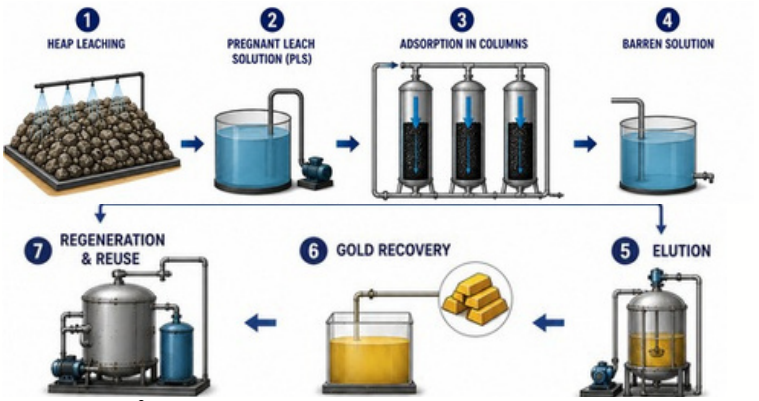


Benefits: Reduced equipment requirement, lower capital cost, shorter processing time and improved operational efficiency.

Best Suited For: Operations aiming for simplified plant design and faster gold recovery.

C. Carbon-in-Column (CIC)

CICis usedin heapleachgold recovery, where cyanide dissolves gold and the solution passes through activated carbon columns for adsorption. The carbon is then regenerated and reused continuously.



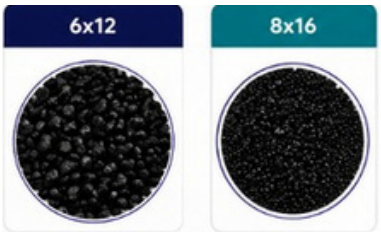
Benefits: Cost-effective processing, efficient treatment of large solution volumes and suitability for low-grade ores.

Best Suited For: Low-grade deposits, heap leach operations and large-scale mining projects requiring economical recovery.

General Specification of Gold Recovery ADSD Adsorbent Carbon		
Key Parameters	**Specifications**	**Unit**
Surface Area	Min. 1100	m^2/g
Iodine	Min. 1100	Mg/g
CTC	55-60	%
Moisture	Max 4	%
Ash	Max 3	%
Platelets	Max 4	%
Hardness	Min 99	%
Attrition	Max 2	%
pH	9-11	
Apparent Density	Min 480	Kg/m^3
K-Value	26-32	
R-Value	50-58	

Grade Comparison Table – Gold Recovery		
Grade	**Iodine Value (mg/g)**	**Primary Use**
ADSDAGOLD-45 CTC	950	Initial Gold Recovery, CIL Circuits
ADSDAGOLD-50 CTC	1000	HIP Leaching, CIP Processes
ADSDAGOLD-55 CTC	1050	Elution Columns, Regeneration
ADSDAGOLD-60 CTC	1100	High-Efficiency Gold Recovery & Refining

Mesh Sizes



Standard Packing



Activated Carbon Solution for Water Treatment

Activated Carbon is available in PAC (Powdered Activated Carbon) and GAC (Granular Activated Carbon) forms for efficient water treatment and purification. ADSDA provides high- performance activated carbon solutions with superior adsorption efficiency, consistent quality and reliable supply for industrial and municipal applications.

Key Benefits



Applications

A. Desalination & RO Pre-Treatment
Activated Carbon protects RO membranes by removing chlorine, chloramines, VOCs, THMs and other oxidizing agents before filtration. It reduces organic fouling, extends membrane life, and improves overall system efficiency and performance. Suitable for both POU (Point of Use) and POE (Point of Entry) water treatment applications.





B. Wastewater Treatment (Industrial & Municipal)
Activated Carbon improves industrial and municipal wastewater quality by efficiently removing pollutants before discharge or reuse. It supports final polishing and enhances treated water performance.

C. Food & Beverage Industry
Activated Carbon ensures high-purity water quality for food and beverage production with food-grade performance and low ash content. It effectively removes taste, odour and chlorine, purifies process liquid water and supports decolourization in processing.





D. Swimming Pool & Recreational Water Treatment
Activated Carbon improves water quality, safety and user comfort by removing chlorine by-products, controlling odour and enhancing water clarity and aesthetics.

E. Aquaculture & Aquarium Water Treatment
Activated Carbon maintains clean, safe and healthy water conditions for aquatic life through natural, residue-free filtration. It effectively removes toxins, for organic waste, odour and discoloration improved water quality.



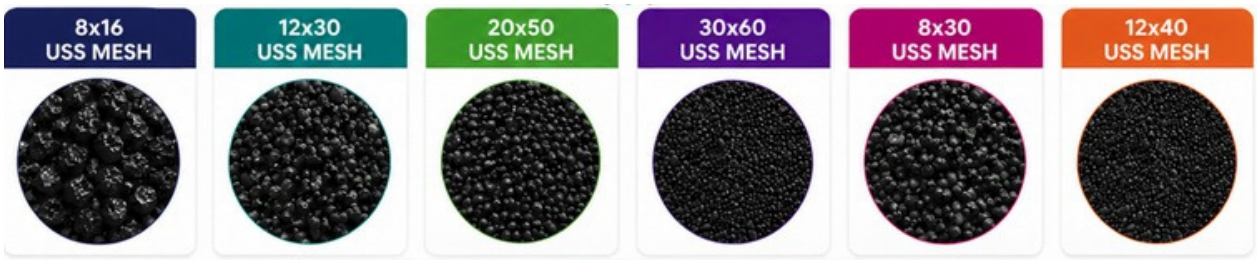


F. Bottled Water & Beverages
Activated Carbon ensures consistent taste, quality and regulatory compliance in bottled water and beverage production. It is widely used in carbonated drinks and fruit juice processing to maintain taste, colour and aroma consistency while removing residual impurities.

General Specification of ADSDA Carbon in Water Treatment		
Key Parameters	**Specifications**	**Unit**
Surface Area	950-1250	m^2/g
Iodine	900-1200	mg/g
CTC	45-60	%
Moisture Content	Max 5	%
Apparent Density	480-550	kg/m^3
Ash Content	Max 5	%
Hardness	Min 98	%
pH	6-11	

Grade Comparison Table- Water Treatment		
Grade	**Iodine value (mg/g)**	**Primary Use**
ADSDAWT-45 CTC	950	Pools, Basic Water Filters
ADSDAWT-50 CTC	1000	Aquarium, Household Filters
ADSDAWT-55 CTC	1050	Bolier Feed, Electronics, Industrial & Municipal Processes Water, Filter Cartridges, POU
ADSDAWT-60 CTC	1100	Bottled Water, Fruit Juice, Beverage Filtration

Available Mesh Sizes



Standard Packing

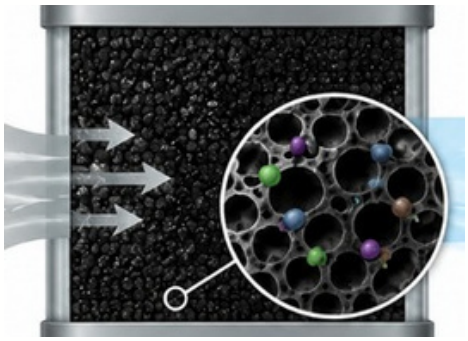


Activated Carbon Solution for Air Purification

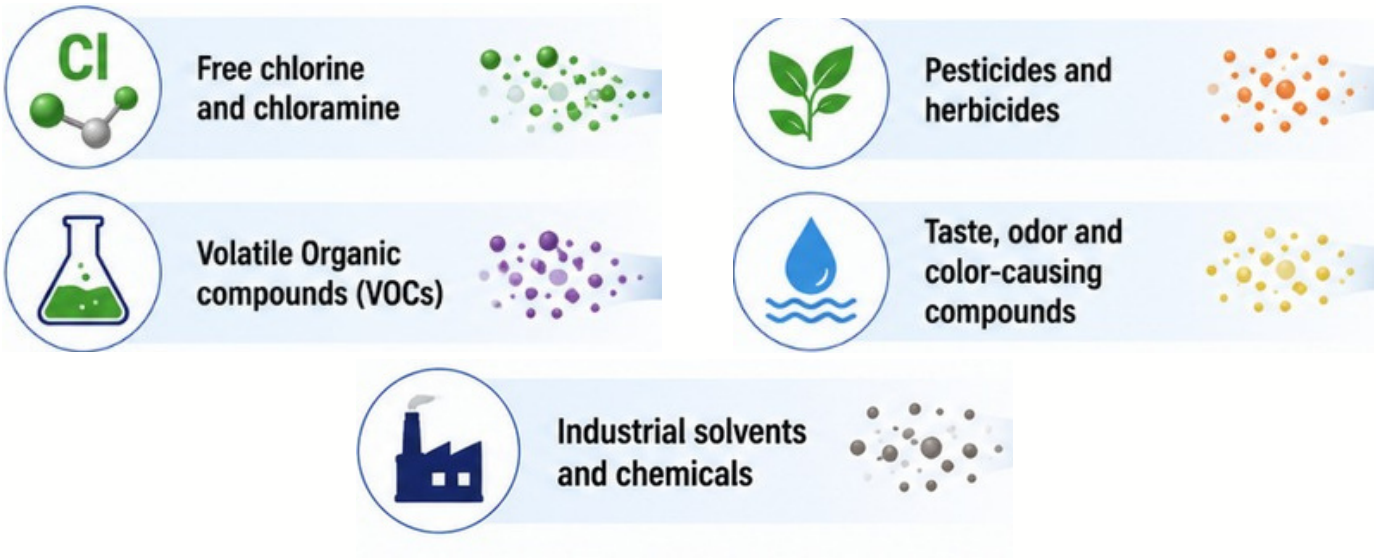
ADSD manufactures premium coconut shell–based activated carbon for efficient air purification. Its high porosity and large surface area effectively remove odours, VOCs and harmful gases from indoor and industrial air streams, making it ideal for homes, offices, factories and chemical plants.

How Activated Carbon Works in Air Purification?

Activated Carbon purifies air through adsorption, capturing odours, VOCs and airborne pollutants within its porous structure. Its combination of physical and chemical adsorption ensures efficient removal of harmful gases even at low concentrations, improving overall air quality.



Activated Carbon is highly effective in Eliminating Impurities in Air Purification



Key Benefits



Applications



General Specification of ADSDA Carbon in Air Purification		
Key Parameters	Specifications	Unit
Surface Area	950-1250	m^2/g
Iodine Value	900-1200	mg/g
CTC	50-70	%
Apparent Density	440-550	kg/m^3
Moisture Content	Max 5	%
Ash Content	Max 5	%
Hardness	Min 98	%
pH	6-11	

Grade Comparison Table-Air Purification		
Grade	**Iodine value (mg/g)**	**Primary Use**
ADSDAAP-70 CTC	1200	Respirators / Cigarette Filters
ADSDAAP-65 CTC	1150	Food CO2, HVAC, Sewage
ADSDAAP-60 CTC	1100	CO2, Compressed Air, Cigarette Filters
ADSDAAP-55 CTC	1050	Industrial CO2
ADSDAAP-50 CTC	1000	PSA, Natural Gas

Available Mesh Sizes



Standard Packing

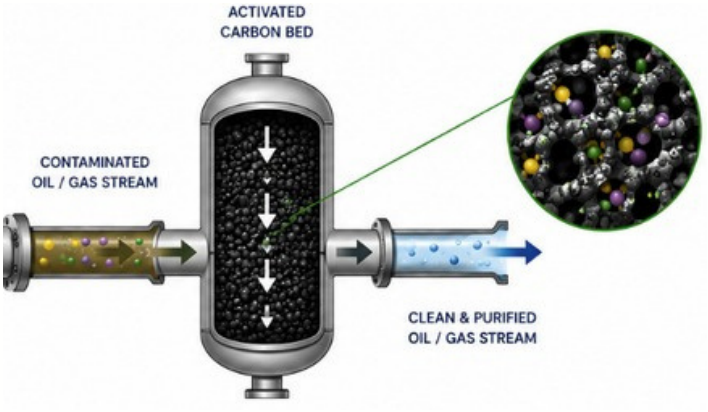


Activated Carbon Solution for Oil & Gas Purification

Activated Carbon efficiently removes hydrocarbons, sulphur compounds, VOCs and trace impurities to improve process efficiency, equipment protection and environmental compliance. Coconut shell–based carbon offers high adsorption, durability and low ash content for refining and gas processing applications.

How Activated works in Oil & Gas Purification?

Activated Carbon purifies oil and gas streams through adsorption, trapping hydrocarbons, sulphur compounds, VOCs and impurities within its porous structure. Its high surface area and optimized pore network ensure efficient contaminant removal for cleaner and refined output.



Activated Carbon is highly effective in Eliminating Impurities in Oil & Gas Purification

Key Benefits



Applications



General Specification of ADSDA Carbon in Oil & Gas Purification		
Key Parameters	**Specifications**	**Unit**
Surface Area	950-1250	m^2/g
Iodine	900-1200	mg/g
CTC	50-70	%
Apparent Density	480-550	kg/m^3
Moisture Content	Max 5	%
Ash Content	Max 5	%
Hardness	Min 98	%
pH	6-11	

Grade Comparison Table-Oil & Gas Purification		
Grade	**Iodine value (mg/g)**	**Primary Use**
ADSDAOGP-70 CTC	1200	Respirators / Cigarette Filters
ADSDAOGP-65 CTC	1150	Food CO2, HVAC, Sewage
ADSDAOGP-60 CTC	1100	CO2, Compressed Air, Cigarette Filters
ADSDAOGP-55 CTC	1050	Industrial CO2
ADSDAOGP-50 CTC	1000	PSA, Natural Gas

Available Mesh Sizes



Standard Packing

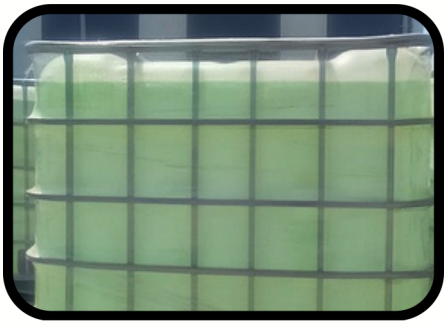


MINING CHEMICALS

- Nitric Acid
- Caustic Soda Liquid /Flakes
- Caustic Soda Pearls
- Methyl Isobutyl Carbinol
- Methyl Isobutyl Ketone
- Methyl Ethyl Ketone
- Sodium Sulphide Na2S
- Sodium Cyanide
- Sodium Hydrosulphide
- Hydrogen Peroxide
- Di Acetone Alcohol
- Hexylene Glycol
- Di Isobutyl Ketone
- Sodium Meta Bisulphite
- Sodium Carbonate (Soda Ash)
- Hydrochloric Acid
- Potassium Amyl Xanthate
- Potassium Butyl Xanthate
- Sodium Isobutyl Xanthate
- Potassium Isobutyl Xanthate
- Alkyl Phosphates
- Sodium Dialkyl Dithiophosphate
- Copper Sulphate
- Lead Nitrate
- Grinding Media
- Ferro Silicon
- Anionic Polyacrylamides & Non-Anionic Polyacrylamides
- Sulphuric Acid



















ADSD
GLOBAL PRESENCE

A Strong Network. Global Reach. Trusted Worldwide.



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