# **CHEMPACK**

# Catalysts &Adsorbents



# Company Profile

Established in 1992, Chempack is a proficient manufacturer and solution provider of catalysts, adsorbents, support balls, and tower packing, have around 30 years of industrial experience in material technologies, engineering design, and technical support.

It's worth mentioning that we have more than 200 With the rapid development of fossil fuel in China, our innovative products for oil refining and petrochemicals specialized R&D team and expert engineers have like FCC, CCR, Hydrocracking, Hydroprocessing, Bed united the state-of-the-art chemical technologies and Grading, Syngas, Sulfur Recovery, Gas Purification, related developed catalysts and adsorbents in the Catalyst Bed Support, and more.

industries of oil refinery, petrochemical, natural gas, coal chemical, environmental and more.











Industrial products adsorbents delivered in our portfolio

Tons of catalysts &

Professional **Employees** 

Specialized **Production Lines** 

Sales to more than 40 countries

# CHEMPACK

## Empowering a Comprehensive Solution

Supported by an experienced local technical services team, Chempack's full-service program is designed to satisfy the demands of the driving dynamics of your operation. From start-up assistance to specialized loading and unloading support, continuous performance tracking, detailed analysis of operational data, regeneration recommendations, and accurate performance forecasts, we offer a full suite of customized services.

Chempack are committed to providing determined support throughout the catalyst's lifecycle, resulting in improved efficiencies.

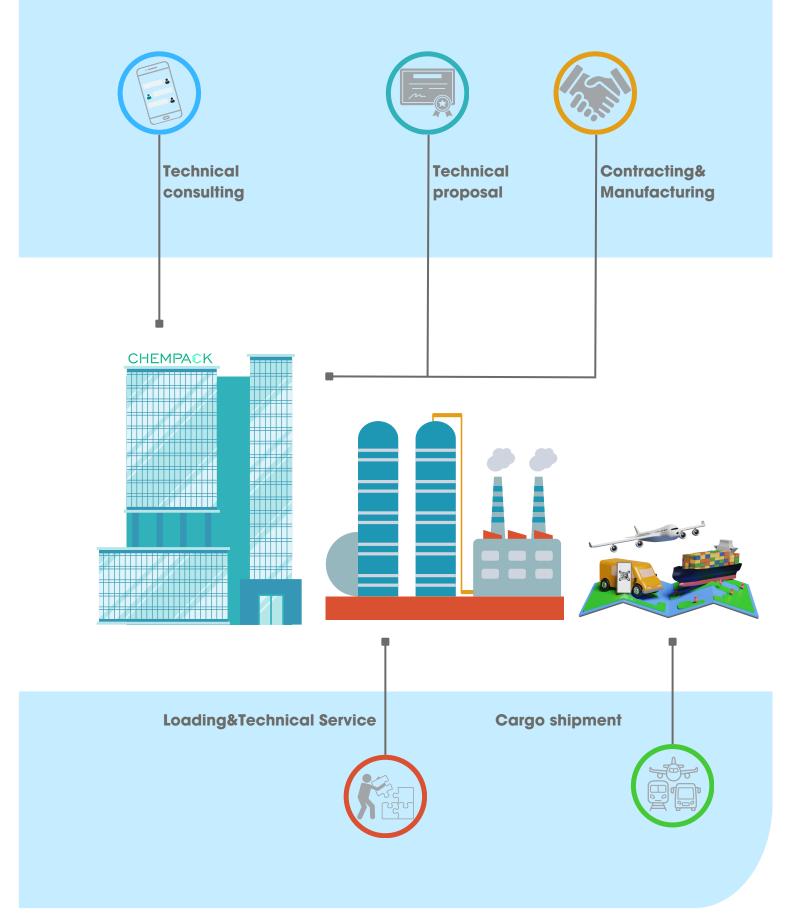
Chempack management systems are certified for:

- ISO 14001:2015
- ISO 9001:2015
- OHSAS 18001:2007





# **Chempack Service Flow**



# 6 market Ording in

CHEMPA

# Gases Oil Refining Grading Petro chemicals

## Powering a Complete Offer

Chempack as a proficient manufacturer and solution provider with over 30 years of industrial experience, Chempack has earned recognition for its cost-effective, high-quality products, and services. The company is dedicated to addressing industry needs by developing and delivering reliable catalysts, adsorbents, and support balls. Chempack's commitment to precision and reliability is evident in its meticulous manufacturing processes, where every step is carefully executed. ensuring that its offerings are not only advanced but also reliable and cost-effective. With a focus on client success, Chempack exemplifies a commitment to excellence that resonates throughout its diverse range of products and services.



Oil Refining In the current landscape where the demand for high-quality fuels and bio-sourced products is on the rise, and the emphasis on reducing environmental impact is more critical than ever, Chempack emerges as a key player in supporting refiners and operators in their pursuit of operational efficiencies and productivity. The company offers a comprehensive portfolio of hydrotreating catalysts and sulfur recovery and tail gas treatment catalysts to address the challenges faced by refiners and operators, facilitating a seamless transition towards sustainable and environmentally conscious practices.

Chemical Chempack distinguishes itself by offering a complete catalyst portfolio for Sulfuric acid, Hydrogen Production, Ammonia Synthesis, and Methanol Synthesis. These catalysts are meticulously designed to deliver optimal advantages, including extended cycle length, exceptional mechanical strength, and high activity.

Gas Processing Chempack is designed to enhance the flexibility, efficiency, and profitability of gas processing operations. Chempack's commitment lies in developing strategies that not only address current challenges but also anticipate the evolving landscape of the gas processing industry, ensuring that their gas processing operations are optimized for efficiency in the future. Chempack provides a wide range of Sulfur recovery and tail gas treatment catalysts, water and hydrocarbon dew point adsorbents, CO2 and O2 removal catalysts and adsorbents, and mercury and sulfur removal adsorbents for gas processing units.

Technical Support Chempack works with licensors to select the right catalyst and adsorbent to meet the process requirements. Our experts run simulations and provide basic designs to the licensor. We collaborate with an engineering company to optimize the detailed designs. We work with the end-users to start up the unit, monitor the catalyst and adsorbent performance, provide analysis for spent catalyst and adsorbent, and offer in-depth recommendations to optimize the operation

Petro chemicals Chempack stands as a reliable partner for the petrochemical industry. Recognizing the diverse needs of the industry, Chempack provides comprehensive technical support and the most cost-effective catalysts and adsorbents for the petrochemical industry. The catalysts and adsorbents for this industry including provide hydrogenation and oxidation catalysts as well as purification adsorbents for many processes, eg. propane dehydration, C3/C4 selective hydrogenation, and C4 full hydrogenation, MTBE/TAME synthesis, monomer purification in PP, PE and PS plant.

Chempack offers a full range of grading materials from poisonous metal and particle traps, active grading material for pressure control to active and inert support balls for the bed top and bottom.

Bed Grading Material and Support Balls

# Quality Assurance

Chempack engineers and implements a wide array of processes for the project of chemical processing, hydroprocessing, and emission control. With the capability of design technologies, process customization, and manufacturing techniques, we help your business to proceed with no boundaries.



# A Aginst Technologies A Aginst Technologies

# We understand your difficulties and concerns, while there are lots of factors within the influence.

Chempack has been devoting all to the research and development of the material reaction process for the industry of oil refining, petrochemical, natural gas, coal chemical, emission management.

Chempack insists on quality assurance to guarantee that every product and service meets the industry standards. Our professional quality control team strictly evaluates and controls every stage of production to ensure the accurate and reliable performance of our products.

With a commitment to innovation and quality, Chempack ensures that our products meet the demands of different areas, providing effective solutions for a wide range of applications. Whether it's catalysts, adsorbents, support balls, or tower packing, Chempack's products are designed to deliver reliable performance across diverse industrial landscapes.



# Who Are Using









































With a commitment to innovation and quality, Chempack ensures that our products meet the demands of different areas, providing effective solutions for a wide range of applications. Whether it's catalysts, adsorbents, support balls, or tower packing, Chempack's products are designed to deliver reliable performance across diverse industrial landscapes.



## Category



**DEHYDRATION ADSORBENT** 

MOLECULAR SEIVES ACTIVATED ALUMINA ACTIVATED CARBON SILICA GEL SILICA ALUMINA GEL



SPECIALTY ADSORBENT

SPECIALTY ZEOLITE SPECIALTY ALUMINA SPECIALTY CARBON SPECIALTY SILICA SPECIALTY CLAY



**BED GRADING & SUPPORT** 

INERT CERAMIC BALL
INERT ALUMINA BALL
ACTIVE BED SUPPORT
BED TOPPING & GRADING



HYDRODESULFURIZATION
DESULFURIZATION
CHLORIDE GUARD
PRE-REFORMING
STEAM REFORMING
HIGH/MEDIUM TEMP CO SHIFT
LOW TEMP CO SHIFT
METHANATION
PSA H2 PURIFICATION



#### **PURIFICATION**

SULFUR REMOVAL
CHLORIDE & HALOGEN REMOVAL
ARSINE & PHOSPHINE REMOVAL
MERCURY REMOVAL
REDUCING GAS REMOVAL
OXYGEN REMOVAL
ETHYLENE & PROPYLENE PURIFICATION
PDH/PROPANE FEED GUARD



#### CATALYST REFINERY

FLUID CATALYTIC CRACKING CATALYTIC REFORMING HYDROTREATING SULFUR RECOVERY

#### **PETROCHEMICAL**

MTBE/TAME SYNTHESIS ETHYLENE OXYCHLORINATION POLYMERIZATION

#### COAL CHEMICAL

FISCHER-TROPSCH

#### **BASIC CHEMICAL**

METHANOL SYNTHESIS FORMOX & DME SULFURIC ACID AMMONIA SYNTHESIS

#### PHARMACEUTICAL CHEMICALS

MORPHOLINE SYNTHESIS



**EMISSION CONTROL** 

VOC TREATMENT NOx TREATMENT













Product Code Dehydration Adsorbent	Materials	Application	Shape
DehySorb Z3S	K+	Drying natural gas, ethanol and reactive monomers	S
DehySorb Z3P	K+	Drying natural gas, ethanol and reactive monomers	Р
DehySorb Z4S	Na+	Used as a general purpose drying agent in polar & non-polar feeds	S
DehySorb Z4P	Na+	Used as a general purpose drying agent in polar & non-polar feeds	Р
DehySorb Z5S	Ca+	Removing CO2, CO, H2S and other weakly polar molecules, PSA	S
DehySorb Z5P	Ca+	Removing CO2, CO, H2S and other weakly polar molecules, PSA	Р
DehySorb Z10S	Na+	Air plant feed purification, H2O, CO2, H2S, mercaptan removal	S
DehySorb Z10P	Na+	Air plant feed purification, H2O, CO2, H2S, mercaptan removal	Р
DehySorb AG1	Alumina	Drying air, gas, liquid feed	S
DehySorb AG2	Alumina	Dust free desiccant for air, gas, liquid feed	S
DehySorb SGA	Silica gel	Fine Pore Silica gel for drying / A Type	S
DehySorb FNG	Silica gel	FNG Silica gel for drying	S
DehySorb OG	Silica gel	Indicating silica gel, orange to green	S
DehySorb BR	Silica gel	Indicating silica gel, blue to red	S
DehySorb H	Si/Al gel	Silica alumina gel for drying	S
DehySorb WS	Si/Al gel	Silica alumina gel for drying, water resistant type	S
Specialty Adsorbent			
PuriSorb OX901	Zeolite	Mecial oxgyen purification by VPSA process	S
PuriSorb OX905	Zeolite	Mecial oxgyen purification by PSA process	S
PuriSorb Z3S	Zeolite	Ethtylene and propylene dehydration	S
PuriSorb Z3P	Zeolite	Ethtylene and propylene dehydration	Р
PuriSorb Z5S	Zeolite	Removal of H2O, CO2, H2S, CO, N2, mercaptans from natural gas & other HC	S
PuriSorb Z10S	Zeolite	Removal of moisture, polar oxygenates and sulfur compounds from gas & liquid HC	S
PuriSorb AG7S	Alumina	Standard hydrogen peroxide grade activated alumina adsorbents	S
PuriSorb AG70S	Alumina	High Peformance hydrogen peroxide grade activated alumina adsorbents	S
PuriSorb AG70G	Alumina	High Peformance hydrogen peroxide grade activated alumina adsorbents	G
PuriSorb PE	Alumina	HDPE purification processing	S
PuriSorb AA20	Alumina	Remove impurities from styrene (such as benzoic acid, phenol, Benzaldhyde, etc)	S
PuriSorb AA30	Alumina	Remove impurities from styrene (such as benzoic acid, phenol, Benzaldhyde, etc)	S
PuriSorb SM-2	Alumina	TBC removal from monomer, PS, styrene	S
PuriSorb DF200	Alumina	Removing free HF and organic fluorides	S
PuriSorb DFX200	Alumina	Removing free HF and organic fluorides, higher HF capacity	S
PuriSorb SD	Proprietary	Regenerative adsorbent fo removal of acid gases & water (H2O,H2S,COS,CS2,CO2)	S
PuriSorb SA	Proprietary	Regenerative adsorbent fo removal of acid gases (H2S,COS,CS2,CO2)	S
PuriSorb AX600	Proprietary	Regenerative adsorbent for removal of polar compounds & oxygenated hydrocarbon	S
PuriSorb AX700	Proprietary	Regenerative adsorbent for removal of polar compounds & oxygenated hydrocarbon	S
PuriSorb DO	Alumina	DME Removal	S
PuriSorb DOX	Proprietary	DME Removal	E
PuriSorb AC5	Carbon	Activated carbon for PSA to remove the impurities CO2, CO, N2, hydrocarbon	Е













	chemicals		
Product Code  Dehydration Adsorbent	Materials	Application	Shape
PuriSorb AC6	Carbon	Activated carbon for odor removal	E
PuriSorb AC15	Carbon	Activated carbon for solvent recovery	E
PuriSorb CMR8	Carbon	Activated carbon for mercury(Hg) removal	E
PuriSorb CSR10G	CuO/AC	Impregnated activated carbon for sulfur removal	G
PuriSorb CSR10E	CuO/AC	Impregnated activated carbon for sulfur removal	E
PuriSorb CMS	CMS	Carbon molecular sieves for nitrogen generator	E
PuriSorb HC	Si/Al gel	Silica alumina gel for Hydrocarbon Removal from Natural Gas	S
PuriSorb ACF25	Acti.Clay	Nitrogen compounds and olefins reduction from aromatics via chemisorption & catalysis	G
PuriSorb ACF25X	Acti.Clay	Nitrogen compounds and olefins reduction from aromatics via chemisorption & catalysis	G
	,		
PuriSorb ACF120	Acti.Clay	Polar contaminants removal & color reduction via chemisorption & catalysis	G
PuriSorb ACF124	Acti.Clay	Olefins removal from aromatics	G
DehySorb FNG	Silica gel	FNG Silica gel for drying	S
DehySorb OG	Silica gel	Indicating silica gel, orange to green	S
DehySorb BR	Silica gel	Indicating silica gel, blue to red	S
DehySorb H	Si/Al gel	Silica alumina gel for drying	S
DehySorb WS	Si/Al gel	Silica alumina gel for drying, water resistant type	S
Bed Topping, Grading, S	upport		
DuraTop ICT-11	Ceramic	7 hole domed tablet, high void inert topping media	T
DuraTop ICT-22	Ceramic	5 hole medal, high void inert topping media for flow distribution	M
DuraTop ICT-55	Ceramic	High void hold down material improved for flow distribution	M
DuraTop ICT-66	Ceramic	Inert topping for pressure drop relief&distribution optimization	FR
DuraTop ICT-99	Ceramic	Inert grading for pressure drop relief&distribution optimization	HR
DuraTop GA	Alumina	Inert topping/support for pressure drop relief&distribution optimization	GR
PuriTrap ADM	Alumina	Mini and ultra minis filtration disks for distribution optimization	Н
PuriTrap CFS	Alumina	Ceramic foam discs to filter fouling particles, 10/30/50/65/80/100 PPI	F
PuriTrap MFR-77	Alumina	Macro porous inert topping media to filter fouling particles	FR
PuriTrap MHR-80	Alumina	Macro porous inert topping media to filter fouling particles	HR
PuriTrap MHR-81	NiMo	Macro porous inert topping media to filter fouling particles	HR
PuriTrap NM	Alumina	Hollow ring grading media to reduce the rate of fouling	HR
AcTrap ABS-88	NiMo	NiMo impregnated active bed support media	S
AcTrap NR	NiMo	NiMo impregnated active grading media to reduce the rate of fouling	HR
AcTrap As-48	NiMo	Very high surface NiMo ring for arsine trapping of hydrotreators	Т
AcTrap As-48	NiMo	Very high surface NiMo ring for arsine trapping of hydrotreators	HR
AcTrap Si-48	Alumina	Very high surface NiMo ring for silica trapping of hydrotreators	Т
AcTrap Si-88	NiMo	Very high surface NiMo trilobe for silica trapping of hydrotreators	Т
Ceramax ICB-17	Ceramic	Catalyst bed support, Al2O3: 15 - 19wt%, Al2O3+SiO2: 92wt%	S
Ceramax ICB-23	Ceramic	Catalyst bed support, Al2O3: 19 - 30wt%, Al2O3+SiO2: 95wt%	S
Ceramax ICB-40	Ceramic	Catalyst bed support, Al2O3: 35 - 45wt%, Al2O3+SiO2: 95wt%	S
Alumax ASB-90	Alumina	Catalyst bed support, Al2O3: 90.0wt%, high operation temperature	S













Product Code	Materials	Application	Shape
Bed Topping, Grading	g, Support		
Alumax ASB-99	Alumina	Catalyst bed support, Al2O3: 99.0wt%, high operation temperature	S
Alumax ASB-995	Alumina	Catalyst bed support, Al2O3: 99.5wt%, ultra low silica - SiO2	S
Actrap AA-S1	Alumina	Active catalyst bed support, higher conversion rate for SRU	S
Purification Adsorl Sulfur Removal, Sulfur G			
PuriSorb ZS-60	ZnO/Mn	H2S & COS removal for gas & liquid at ambient temp - 220 deg C	E
PuriSorb T-90S	ZnO	H2S & COS removal at high temp, 300 - 440 deg C	S
PuriSorb T-90E	ZnO	H2S & COS removal at high temp, 300 - 440 deg C	E
PuriSorb T-99S	ZnO	H2S & COS removal at high temp, 300 - 440 deg C	E
PuriSorb T-99E	ZnO	H2S & COS removal at high temp, 300 - 440 deg C	E
PuriSorb T-FE-1	Fe2O3	H2S removal from natural gas, CO2 gas at ambient temp	Е
PuriSorb SS-10G	Fe(OH)3	H2S removal from natural gas, CO2 gas at ambient temp	G
PuriSorb SS-10E	Fe(OH)3	H2S removal from natural gas, CO2 gas at ambient temp	Е
PuriSorb SS-25G	Fe(OH)3	H2S removal from natural gas, CO2 gas at ambient temp	G
PuriSorb SS-25E	Fe(OH)3	H2S removal from natural gas, CO2 gas at ambient temp	E
PuriSorb MSR-75	MnO	H2S, RSH, COS removal at 280-400 deg C	G
PuriSorb MSR-85	MnO	H2S, RSH, COS removal at 280-400 deg C	Е
PuriSorb ASR-20	Metal oxide	Sulfur, arsine, phosphine removal at	S
PuriSorb CSR-10E	CuO/AC	Bulk sulfur species removal like H2S, ambient - 80 deg C	Е
PuriSorb NS-75	NiO	Sulfurs & thiophenes in heavy HC at temp < 200 deg C	Е
PuriSorb NS-78	NiO	Sulfurs & thiophenes in heavy HC at temp < 200 deg C	E
PuriSorb NCS	NiO, CuO	Sulfurs & thiophenes in heavy HC at temp < 200 deg C	Е
PuriSorb CS-12E	CuO, ZnO	H2S, mercaptan, organic sulphides from liquid phase, 80 - 200 deg C	Е
PuriSorb CS-12T	CuO, ZnO	H2S, mercaptan, organic sulphides from liquid phase, 80 - 200 deg C	Т
PuriSorb CS-15T	CuO, ZnO	H2S, mercaptan, organic sulphides from liquid phase, 80 - 200 deg C	Т
Purification Adsorber Chloride & Halogen Rem			
PuriSorb CR-Z10	Zeolite	Organic chloride and HCl removal from various vapour and liquid streams	S
PuriSorb CR-Z30	Metal oxide	Very high chloride capacity, HCl removal from various vapour and liquid streams	Е
PuriSorb CR-C30	Metal oxide	Organic chloride and HCl removal from various vapour and liquid streams	Е
PuriSorb ZCL-830	Metal oxide	Very high HCl capacity, ambient - 400 deg C	E
PuriSorb CCR 300	CaO	Very high HCl capacity, ambient - 400 deg C	E
PuriSorb ACL 805	Alumina	Standard HCl adsorbent, ambient - 380 deg C	S
PuriSorb ACL 810	Alumina	Standard HCl adsorbent, ambient - 380 deg C	S
PuriSorb ACL 815	Alumina	High HCl capacity, ambient - 380 deg C	S
PuriSorb NCR-50	NiO	RCI removal from liquid HC feeds, ambient - 200 deg C	E
PuriSorb OCR 400	CuO	RCI removal from liquid HC feeds, ambient - 200 deg C	E













Product Code Purification Adsorbents Arsine & Phosphine Removal,	<b>Materials</b> Arsine Guard	Application	Shape
PuriSorb ASR-12E	CuO, ZnO	Sulfur, arsine and phosphine removal from HC, ambient - 200 deg C	E
PuriSorb ASR-12T	CuO, ZnO	Sulfur, arsine and phosphine removal from HC, ambient - 200 deg C	Т
PuriSorb ASR-22E	CuO, ZnO	Removal of traces of As, P, S, CO and O2 from gas & HC	E
PuriSorb ASR-22T	CuO, ZnO	Removal of traces of As, P, S, CO and O2 from gas & HC	т
PuriSorb LAS-20	PbO/Al2O3	Arsine, sulfur (H2S, COS & light mercaptans) & mercury from various vapour	S
Purification Adsorbents Mercury Removal, Mercury Gu	uard		
PuriSorb AMR-5	S/Al2O3	High mercury capacity for natural gas, coal gas at ambient temp	S
PuriSorb AMR-8	CuO/Al2O3	High mercury capacity for natural gas, coal gas at ambient temp	S
PuriSorb AMR-9	CuO/Al2O3	High mercury capacity for natural gas, coal gas at ambient temp	S
PuriSorb MR-10	CuO	High mercury capacity for natural gas, coal gas at ambient temp	E
PuriSorb CMR-8	S/AC	Traces of Hg from gas streams at ambient temp	E
PuriSorb CMR-10	CuO/S	Traces of Hg from gas streams at ambient temp	Е
PuriSorb AG-3	Ag/Zeolite	Traces of Hg from gas streams at ambient temp	E
PuriSorb AG-4	Ag/Zeolite	Traces of Hg from gas streams at ambient temp	E
Purification Adsorbents Reducing Gas Removal, H2, CC	)		
PuriSorb CM	CuO	H2, CO removal from gas at ambient	S
PuriSorb DR-03	Pd/Al2O3	Removal of H2/CO from nitrogen, industrial gas at ambient - 500 deg C	S
PuriSorb DR-02	Pd/Al2O3	Removal of H2/CO from nitrogen, industrial gas at ambient - 500 deg C	т
PuriSorb RR-12E	CuO, ZnO	Removal of H2/CO from nitrogen, industrial gas at ambient - 250 deg C	E
PuriSorb RR-12T	CuO, ZnO	Removal of H2/CO from nitrogen, industrial gas at ambient - 250 deg C	Т
Purification Adsorbents Oxygen Removal, O2			
PuriSorb DO-03	Pd/Al2O3	Removal of O2 from nitrogen, hydrogen at ambient - 500 deg C	S
PuriSorb DO-02	Pd/Al2O3	Removal of O2 from nitrogen, hydrogen at ambient - 500 deg C	Т
PuriSorb DO-20	CuO/Al2O3	Removal of O2 from ethylene, nitrogen, natural gas, and propylene	S
PuriSorb DO-12E	CuO, ZnO	Removal of traces of As, P, S, CO and O2 from gas & HC	E
PuriSorb DO-12T	CuO, ZnO	Removal of traces of As, P, S, CO and O2 from gas & HC	Т
Purification Adsorbents COS, CO2, AS, Sulfur Removal	for Ethylene, Propylene		
PuriCat COS	Alumina	Promoted alumina for COS hydrolysis from light HC	S













<b>Product Code</b>	Materials	Application	Shape
ETHYLENE, PROPYLENE,	, COS, CO2, AS, SULFUR		
PuriCat COS	Alumina	Promoted alumina for COS hydrolysis from light HC	S
PuriSorb COS	Alumina	Promoted alumina for trace CO2 removal from light HC	S
PuriSorb CS-12E	CuO, ZnO	Sulfur, arsine and phosphine removal from HC, ambient - 200 deg C	Е
PuriSorb CS-12T	CuO, ZnO	Sulfur, arsine and phosphine removal from HC, ambient - 200 deg C	Т
PuriSorb CS-16E	CuO, ZnO	Removal of traces of As, P, S, CO and O2 from gas & HC	Е
PuriSorb CS-16T	CuO, ZnO	Removal of traces of As, P, S, CO and O2 from gas & HC	Т
PuriCat 205	Pd/Al2O3	Removal of acetylene by selective hydrogenation from ethylene or other process gas	S
PDH/PROPANE FEED GU	JARD		
PuriSorb ACL810	Alumina	Chloride guard	S
PuriSorb ACL815	Alumina	Chloride guard	S
PuriSorb SD-06	Alumina	Regenerative adsorbent fo removal of acid gases & water (H2O,H2S,COS,CS2,CO2)	S
PuriSorb SD-05	Alumina	Regenerative adsorbent fo removal of acid gases & water (H2O,H2S,COS,CS2,CO2)	S
PuriSorb ASR	Metal oxide	Arsine, phosphine guard	S
PuriSorb AMR-8S	CuO/Al2O3	Mercury guard	S
DehySorb Z3P	K+	Feed Drying	P
HyKat RS101	Resin	Feed guard bed, NH3 removal	В
PuriSorb SA	Alumina	COS/CO2 Propylene Treater	S













Product Code	Materials	Application	Shape
<b>Catalyst</b> Reinfery			
Catalytic Refmoring - Contin	nuous Reforming & Semi-Re	egenerative Reforming	
HyKat CCR-310	Pt/Sn	CCR to produce aromatics and hydrogen or high-octane reformate and hydrogen	S
HyKat CCR-330	Pt/Sn	CCR to produce aromatics and hydrogen or high-octane reformate and hydrogen	S
HyKat AR-C	Pt/Re	High selective, activity, stability for higher octane number gasoline	Е
HyKat AR-D	Pt/Re	High selective, activity, stability for higher octane number gasoline	E
Isomerization - C5/C6			
HyKat ISO-100	Pt	C5/C6 normal paraffin isomerization, higher activity, longer lifetime	E
Hydrotreating - Naptha,	Diesel, Kerosene, Gaso	line, VGO, Lube Oil	
HyKat HN-220	NiMo	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	E
HyKat HN-320	NiMo	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	E
HyKat HN-120	NiW	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	S
HyKat HN-120	NiW	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	E
HyKat HN-130	NiW	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	E
HyKat HN-140	СоМо	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	Е
lyKat HT-780	СоМо	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	Е
HyKat HT-750	СоМо	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	E
HyKat HT-775	СоМо	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	E
HyKat HT-740	СоМо	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	E
HyKat HT-780	СоМо	Optimized to improve sulfur and nitrogen removal, better HDS&HDN	Е
Sulfur Recovery - Claus, <sup>-</sup>	Tail Gas Treatment		
PuriCat PSR-1	Al2O3	Alumina based Claus catalyst, large surface area, large pore volume	S
PuriCat PSR-1L	Al2O3	Alumina based Claus catalyst, lower density, higher surface area, larger pore volume	S
PuriCat PSR-21	Ti/Al2O3	Promoted alumina Claus catalyst, improved COS/CS2 hydrolysis	S
PuriCat PSR-31E	TiO2	Titania based Claus catalyst, very high COS/CS2 hydrolysis rate	Е
PuriCat PSR-31T	TiO2	Titania based Claus catalyst, very high COS/CS2 hydrolysis rate	т
PuriCat PSR-41	Fe/Al2O3	Promoted alumina catalyst, oxygen scavenger	S
PuriCat PSR-51S	СоМо	Tail gas treatment, maximize the total sulfur conversion to 99.5%	S
PuriCat PSR-51TL	СоМо	Tail gas treatment, maximize the total sulfur conversion to 99.5%	Т
PuriCat PSR-61S	СоМо	Lower temperature tail gas treatment, higher sulfur conversion rate	S
uriCat PSR-61TL	СоМо	Lower temperature tail gas treatment, higher sulfur conversion rate	т













		chemicals	
Product Code	Materials	Application	Shape
Catalyst Petrochemical MTBE/TAME Synthesis			
HyKat RS-101	Resin	Organic reactions like alkylation, esterification, etherification, condensation hydrolysis	В
PuriSorb ASR-12T	CuO, ZnO	Sulfur, arsine and phosphine removal from HC, ambient - 200 deg C	Т
PuriSorb ASR-22E	CuO, ZnO	Removal of traces of As, P, S, CO and O2 from gas & HC	E
PuriSorb ASR-22T	CuO, ZnO	Removal of traces of As, P, S, CO and O2 from gas & HC	Т
PuriSorb LAS-20	PbO/Al2O3	Arsine, sulfur (H2S, COS & light mercaptans) & mercury from various vapour	S
Ethylene Oxychlorinat HyKat EO-105	<b>tion</b> Cu	Fluid bed ethylene oxychlorination process, low byproducts	M
HyKat EO-115	Cu	Fluid bed ethylene oxychlorination process, low byproducts	M
<b>Oligomerization</b> HyKat AC-102	Acid	The new generation of solid phosphoric acid catalyst	М
Coal Chemicals Fischer-Tropsch Process HyKat FTC-80	Co	Cobalt based Fischer-Tropsch catalyst for low temp, 200 - 240 deg C	Т
Basic Chemicals MTBE/TAME Synthesis			
HyKat SRK-30	Cu/Zn	Combined methanol synthesis, emission convert for ammonia plant	Т
HyKat SRK-50	Cu/Zn	Low pressure Cu/Zn methanol synthesis catalyst	т
HyKat C-307	Cu/Zn	Low pressure Cu/Zn methanol synthesis catalyst	т
Formox & DME			
HyKat SMF-50	Fe/Mo	Formox process producing formaldehyde by methanol oxidation	R
HyKat SDE-13	Al2O3	Gas phase methanol dehydration to produce dimethyl ether	E
HyKat SDE-13	Al2O3	Gas phase methanol dehydration to produce dimethyl ether	E
Sulfuric Acid			
HyKat SAP-75	V2O5	5-ribbed ring design for high activity, high SO2 conversion	R
HyKat SAP-78	V2O5	5-ribbed ring design for high activity, high SO2 conversion	R
HyKat SAP-80	V2O5	5-ribbed ring design for high activity, high SO2 conversion	R
HyKat SAP-VC30	Cs/V2O5	5-ribbed ring design for high SO2 conversion, low SO2 emission	R
HyKat SAP-VC50	Cs/V2O5	5-ribbed ring design for high SO2 conversion, low SO2 emission	R
HyKat SAP-VC70	Cs/V2O5	5-ribbed ring design for high SO2 conversion, low SO2 emission	R
HyKat VK-10W	V2O5	7-ribbed ring design for high activity, high SO2 conversion for WSA/WSA-DC	R
HyKat VSX-8W	Cs/V2O5	7-ribbed ring design for high SO2 conversion, low SO2 emission for WSA/WSA-DC	R
HyKat VSX-16W	Cs/V2O5	7-ribbed ring design for high SO2 conversion, low SO2 emission for WSA/WSA-DC	R













Product Code	Materials	Application	Shap
Catalyst Pharmaceutical Chemicals Morpholine Synthesis			
HyKat SML-50	Ni/Cu	Morpholine synthesis	Т
<b>Catalyst</b> Basic Chemicals Ammonia Synthesis			
HyKat A202	Fe/Co	Convert synthesis gas containing hydrogen and nitrogen into ammonia	G
HyKat A202R	Fe/Co	Convert synthesis gas containing hydrogen and nitrogen into ammonia	G
Catalyst SynGas/H2 Hydrodesulfurization			
HyKat S-100	СоМо	Unsaturated olefin, organic sulfur hydro-conversion	Т
HyKat S-101	СоМо	Unsaturated olefin, organic sulfur hydro-conversion	Н
HyKat S-102	СоМо	Unsaturated olefin, organic sulfur hydro-conversion	Т
HyKat S-103	NiCoMo	Unsaturated olefin, organic sulfur hydro-conversion	Т
HyKat S-104	NiMo	Unsaturated olefin, organic sulfur hydro-conversion	Q
Desulfurization	7.0		_
PuriSorb T-90E	ZnO	H2S & COS removal at high temp, 300 - 440 deg C	E
HyKat SR-213	NiO	H2S & COS removal at high temp, 300 - 440 deg C	S
HyKat SR-201K	NiO	H2S & COS removal at high temp, 300 - 440 deg C	Е
Steam Reforming			
HyKat SPR-50	NiO	High nickel, high activity pre-reforming catalyst for hydrocarbon	Т
HyKat SR-212	NiO	Primary reforming process for natural gas, coke oven gas and other syngas	4 H
HyKat SR-213	NiO	Primary reforming process for natural gas, coke oven gas and other syngas	4 H
HyKat SR-201K	NiO	Nickel based steam reforming catalyst for upper section	4 H
HyKat SR-202K	NiO	Nickel based steam reforming catalyst for bottom section	4 H
HyKat SR-301K	NiO	Alkali promoted Nickel based steam reforming catalyst for upper	4 H
HyKat SR-302K	NiO	Nickel based steam reforming catalyst for bottom	4 H
HyKat SR-217	NiO	Alkali promoted Nickel based steam reforming catalyst for upper	4 H
HyKat SR-218	NiO	Nickel based steam reforming catalyst for bottom	4 H
HyKat SR-D37	NiO	Ni-based high active catalyst supported on alumina loaded at the top of the tube	6 H
HyKat SR-D38	NiO	Ni-based semi-active catalyst supported on magnesium oxide loaded at the middle	6 H
HyKat SR-D39	NiO	Inert alumina raschig ring loaded at the bottom of the tube	R
CO Shift			
HyKat ST205	Cu/Zn	Low temperature CO shift catalyst	Т
HyKat ST217	Fe/Cr	Nickel based steam reforming catalyst for upper section	Т
HyKat ST213	Fe/Cr	Nickel based steam reforming catalyst for upper section	Т













Product Code  Catalyst SynGas/H2 Methanation	Materials	Application	Shape
HyKat MJ103S	Ni	Nickel based methanation catalyst	S
HyKat MJ113S	Ni	Nickel based methanation catalyst	S
HyKat MJ103T	Ni	Nickel based methanation catalyst	Т
HyKat MJ113T	Ni	Nickel based methanation catalyst	Т
PSA H2 Purification			
PuriSorb AA30	Alumina	High surface PSA grade activated alumina desiccant	S
PuriSorb SGP	Silica gel	PSA grade silica gel desiccant	S
PuriSorb AC5	Carbon	Coconut based PSA grade activated carbon, bulk CO2 adsorption	Е
PuriSorb HAC-15E	Carbon	Coconut based PSA grade activated carbon, bulk CO2 adsorption	Е
PuriSorb Z5A-16H	Ca+	PSA grade 5A molecular sieve	S
PuriSorb 5A	Ca+	PSA grade 5A molecular sieve	Р
PSA H2 Purification			
EnvCat VOC-20	Pd/Al2O3	High surface PSA grade activated alumina desiccant	S
EnvCat VOC-21	Pt/Al2O3	PSA grade silica gel desiccant	S
EnvCat DN-V16	V2O5	Coconut based PSA grade activated carbon, bulk CO2 adsorption	Е
EnvCat DN-V18	V2O5/TiO2	Coconut based PSA grade activated carbon, bulk CO2 adsorption	Е



#### Chempack Co.,Ltd

No.16, Jinfeng Road West Section, Hi-tech Industrial Park Pingxiang, Jiangxi 337000 P.R.China

Cell. +86-13707994715 Ph. +86-799 6660456 Fax. +86-799 6669456 Email: sales@chempack.co

www.chempack.co

#### Sino Catalyst Co Limited

NRM 13 27/F Ho King Commercial Centre 2-16 Fa Yuen Street Mongkok KL Hong Kong P.R.China

Cell. +86-13707994715 Ph.: +852-30501908

Email: sales@sinocata.com

www.sinocata.com