

Extend Catalyst Life, Protect Equipment and Ensure Product Specifications Are Met

Adsorbent Solutions in Refining

Adsorbents for Catalytic Reforming

CLR-204: Premier, highest capacity product with very

low green oil production for net gas and $\,\mathsf{LPG}$

treating

CLR-454: Good capacity in net gas treating. Makes no

green oil

PCL-100: For use in stabilizer feed treating, also removes

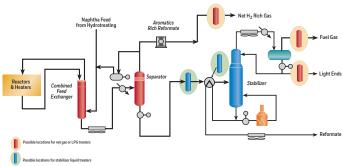
organic chlorides along with trace HCI

PCL-200: Premium product designed for inorganic and

organic chloride removal from liquid

hydrocarbon streams

Chloride Treating in Reforming



Adsorbents for Isomerization

HPG-250 & Use in feed treaters to remove a broad range **HPG-429:** of impurities. Add to make-up H₂ dryers for both

 H_2O and removal of CO_2 , H_2S or methanol.

HPG - 300: Upgraded high performance grade for feed

treater contaminant removal with higher capacity to enable longer adsorbent bed life

PDG-418: For moisture removal in make-up H₂ dryers

ADS-120: Cost-effective, non-regenerative sulfur

removal adsorbent for treating Penex and

reforming feed streams

ADS-130: Non-regenerable sulfur removal adsorbent for

treating BenSat feed streams more sensitive to water. No water generated at start-up.

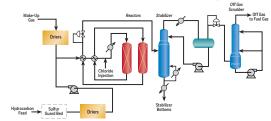
ADS-11L: Thiophene removal in a broad range of

refinery streams.

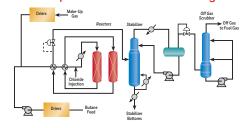
ADS-18: Upgraded thiophene removal with lower

ABD and higher capacity.

Simplified Penex[™] Flow Diagram



Simplified Butamer™ Flow Diagram



Adsorbents for HF Alkylation

GB-346S & Hg removal from hydrocarbons **GB-347S**: in feed to alkylation units

ADG-401: Use alone to remove water or with

HPG-250 or HPG-429 to remove H_2O

and oxygenates in feed dryers

ORG-E & High capacity adsorbent used to purify ORG-HP: etherification raffinate streams, used as

alkylation feedstocks

P-188 & Premier, highest capacity defluorination A-202HF: adsorbent resulting in longer effective

bed life

AZ-300 & Hybrid alumina-zeolite adsorbent providing **AZ-400:** excellent removal of H₂O, COS, RSH, H₂S,

oxygenates and nitrogen compounds

Diefen ORU Recycle Resident Diesex Diesex Coding National Coding Recycle Recy

UOP HF Alklation Process

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