

High Performance
Low Cost
Generic & Specialty Amines
for
Acid Gas Treating

AMINES & PLASTICIZERS LTD.



Amines & Plasticizers Limited, APL, (an ISO-9001-2008, ISO-14001-2004 & OHSAS-18001-2007 Certified Company) manufactures Methyl Diethanolamine (MDEA), MDEA based Specialty Solvents, Ethanolamines and other Alkyl Alkanolamines using a modern "Continuous Process" plant situated near port city of Mumbai having an annual production capacity of well over 10,000 Metric Tons.

APL manufactures and exports MDEA & MDEA based Specialty solvents to more than 30 countries globally and its customers include:

OIL REFINERIES, FERTILIZER PLANTS,

NATURAL GAS PLANTS, STEEL PLANTS,

LNG / LPG PLANTS, HYDROGEN PLANTS,

ETHYLENE PLANTS, ETC.

APL works with End-Users and Engineering companies alike, meeting their product and **service support needs**, for both first fill as well as top up requirements and has a dedicated team of Engineers & Chemists who provide on line assistance to customers.









APL Provides Services

- Product Supplies as per Customer requirements.
- On Line Technical Service Support.
- Complete Analytical Service Support along with Products supplies.

APL Support Services

- Assisting, Planning & Preparing system start up,
- Optimization of system performance
- Providing on-going simulation service support, and
- Being available when needed.

APL is completely geared up to meet all the requirements for Acid Gas Treating solutions. For any requirement of products, technical or analytical support, do call us.



HIGH PERFORMANCE ACID GAS TREATING SOLVENTS

AMINOSOL – CST [™] – Series

APPLICATIONS

Natural Gas Synthesis Gas

Cryogenic Applications

Fertilizer Plants

LNG / LPG, Steel - Plants

ADVANTAGE

H₂S and Maximum CO₂ Removal

Easier to Regenerate

Can be Operated at Higher Lean Loading

No Degradation Products from Reaction with CO₂,

Solvent Selection Depends upon the CO₂ Partial

Pressure in the Feed Gas & Final CO₂ Specification.

AMINOSOL - SP [™] / AMINOSOL - G [™] / ACTISOLV [™] – Series

APPLICATIONS

Natural Gas Synthesis Gas

Cryogenic Applications

Fertilizer Plants

LNG / LPG, Steel - Plants

ADVANTAGE

Less Corrosive than MEA & DEA Provide Maximum CO₂ Removal

Reduced Solvent Loss due to Low Foaming Tendency

& Lower Solvent Vapour Pressure.

AMINOSOL™ / AMINOSOL-HST™ – Series

APPLICATIONS

Main Amine System Tail Gas Treaters SRUs

ADVANTAGE

Less Corrosive Lower Energy Requirements High CO₂ Slip, Better Selectivity Performance Superior than Generic Amines Excellent Chemical Stability.

AMINOSOL - Specialty range of solvents can be specifically designed to suit customer requirement.

METHYL DIETHANOLAMINE - a Generic Amine

AMINE RECLAMATION / PURIFICATION UNIT

In addition to supply of above products and services, APL also carries out Amine Reclamation / Purification studies and based on this study, offers its clients cleaning of the current degraded/contaminated solvents. To cater to this requirement APL provides Fixed as well as Mobile skid mounted HSS Removal Unit for online treating at client's site.





Technical Services

Simulation Services

Our process simulator has been proven to predict accurately the performance of our solvents in numerous process schemes, De-bottlenecking and revamps, including solvent swaps.

We offer the following Technical & Analytical Services along - with Specialty Solvent supplies:-

We provide ongoing simulation service support to all users of our products. Free simulation support is provided for one year after initial / make-up solvent purchases.

On-going Technical Support

We provide ongoing support to all users of our products. On-line consultation and technical services and visits by our Engineers [at our standard services charges offered along with Product purchases.]

Analytical Laboratory Services

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Title: Lean Amine Solution Analysis Report Sample: Gas Treating Unit **ANALYSIS REPORT OF LEAN AMINE SOLUTIONS** Sample Recieved Sample Type Appearance **Amine Concentration** Amine Strength wt% Metals by ICP Chromium (Cr) (PPM) Copper (Cu) (PPM) Iron (Fe) (PPM) Pottasium (K) (PPM) Sodium (Na) (PPM) Nickel (Ni) (PPM) Calcium (Ca) (PPM) Silica (SiO,) (PPM) **Acid Gas Loading** H,S (wt %) H₂S Mole/Mole CO, (wt %) CO, Mole/Mole Total Acid Gas Loading (H₂S + CO₂) Mole/Mole

AMINES & PLASTICIZERS LTD.

Title : Lean Amine Solution Analysis Report **Sample :** Gas Treating Unit



Heat Stable Salt	
Heat Stable Amine Salts, Wt % Amine	
Irorganic Heat Stable Salts, Wt% Amine	
Total Heat Stable Salts, Wt % Amine	
pH of Amine Solution	
Foam Test	
Foam Test Foam Height	
Foam Height	
Foam Height Break Time	
Foam Height Break Time Corrosion Test	

Anions by IC	
Formate	
Acelate	
Oxalate	
Chloride	
Sulphate	
Thiosulphate	
Thiocynate	

Analytical Frequency

- Free sample analysis, once per quarter, for one year after initial purchase.
- Free sample analysis, once per quarter, in each year for which make-up Solvent is purchased.



SOME OF OUR CUSTOMERS

Sr. No.	LOCATION	APPLICATION	SOLVENT SUPPLIED	PREVIOUS SOLVENT
1.	Argentina	Natural Gas	MDEA	MDEA
2.	Australia	Ammonia Plant	Spl. Blended MDEA Solvent	aMDEA
3.	Australia	Ammonia Plant	Spl. Blended MDEA Solvent	DEA
4.	Bahrain	Refinery	MDEA	MDEA
5.	China	Refinery	MDEA	MDEA
6.	Egypt	Refinery	MDEA	MDEA
7.	Egypt	Natural Gas	MDEA	
8.	India (North)	Natural Gas	Spl. Blended MDEA Solvent	DEA
9.	India (West)	Natural Gas	Spl. Blended MDEA Solvent	
10.	India (West)	Ammonia Plant	Spl. Blended MDEA Solvent	aMDEA
11.	India (West)	Ammonia Plant	Spl. Blended MDEA Solvent	aMDEA
12.	India (West)	Oil & Gas Production	MDEA	MDEA
13.	India (West)	Oil & Gas Production	MDEA	MDEA
14.	India (West)	Refinery	MDEA	MDEA
15.	India (South)	Ammonia Plant	Spl. Blended MDEA Solvent	aMDEA
16.	Iran	Refinery	MDEA	MDEA
17.	Iran	Refinery	MDEA	MDEA
18.	Iran	Natural Gas	MDEA	
19.	Iran	Natural Gas	MDEA	DEA
20.	Iran	Natural Gas	MDEA	MDEA
21.	Iran	Natural Gas	AMINOSOL CST 115 ™	
22.	Indonesia	NGL	MDEA	MDEA
23.	Indonesia	Natural Gas	MDEA	MDEA
24.	Indonesia	Natural Gas	AMINOSOL CST 115 ™	JEFF TREAT
24. 25.	Kazakistan	Refinery	MDEA	MDEA
26.	Kuwait	Gas Plant	MDEA	MDEA
20. 27.	Kuwait	Gas Plant	AMINOSOL CST 115 ™	
	Libya			
28.	<u> </u>	Refinery	MDEA	MDEA
29.	Malaysia	Refinery	MDEA	MDEA
30.	Malaysia	DRI - Gas Plant	AMINOSOL CST 115 ™	aMDEA
31.	Netherlands	Refinery	MDEA	MDEA
32.	Oman	Natural Gas	MDEA	MDEA
33.	Oman	Refinery	MDEA	MDEA
34.	Qatar	NGL	MDEA	MDEA
35.	Qatar	NGL	MDEA	MDEA
35.	Qatar	Natural Gas	AMINOSOL CST 115 ™	DEA
37.	Qatar	Fertiliser	MDEA	MDEA
38.	Saudi Arabia	Refinery	MDEA	MDEA
39.	Saudi Arabia	Refinery	MDEA	MDEA
40.	Singapore	Refinery	MDEA	MDEA
41.	South Africa	Refinery	MDEA	MDEA
42.	Syria	Refinery	MDEA	MDEA
43.	Taiwan	Refinery	MDEA	MDEA
44.	Turkey	Refinery	MDEA	MDEA
45.	Turkmenistan	Natural Gas	MDEA	MDEA
46.	Tunisia	Natural Gas	MDEA	MDEA
47.	UAE	Natural Gas	MDEA	MDEA
48.	UAE	Refinery	MDEA	MDEA
49.	UAE	Natural Gas	MDEA	MDEA
	USA	Ammonia Plant	Spl. Blended MDEA Solvent	aMDEA

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Our Global Presence:



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