## GAS/SPEC O Specialty Amine

GAS/SPEC\* SS-3 specialty amine is formulated for the use in applications where selective removal of H<sub>2</sub>S from gas streams is required. GAS/SPEC SS-3 not only removes H<sub>2</sub>S to lower levels thanMDEA (methldiethanomine) alone, but also improves CO<sub>2</sub> slip. Increased selectivity for H<sub>2</sub>S over CO<sub>2</sub> allows the plant to increase treating capacity, lower energy usage, and improve the quality of acid gas going to the sulfur plant.

The net results are lower costs and improved plant operations. The unique selective propert of GAS/SPEC SS-3 allows this solvent to be used in applications where MDEA cannot achieve the required  $\rm H_2S$  specification.

\* GAS/SPEC is a registered trade mark and service mark of INEOS LLC



## **Applications**

■ Natural Gas Treating

■ Refinery Applications

<b>Physical Properties</b>
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Specific Gravity @ 25/25°C 1.04	
Boiling Point @ 760 mmHg 147.5	$^{\circ}\mathrm{C}$
	$^{\circ}\mathrm{F}$
Freezing Point (50 Wt%)32.1	$^{\circ}\mathrm{C}$
25.8	$^{\circ}\mathrm{F}$
Latent Heat of Vaporization 200.2	Btu/lb <sub>m</sub>
111.0	Cal/g
Flash Point (PMCC)>136	°C
>277	${}^{\circ}\mathrm{F}$

Viscosity		Centipoise (cP)	lb <sub>m</sub> /ft•sec
@ 20°C (68°F)	50 Wt%	11.4	0.008
	100 Wt%	95.2	0.064
@ 100°C (212°F)	50 Wt%	1.3	0.001
	100 Wt%	4.3	0.003
Density		g/cc	lb <sub>m</sub> /gal
@ 20°C	50 Wt%	1.05	8.77
	100 Wt%	1.05	8.75
@ 100°C	50 Wt%	1.00	8.30
	100 Wt%	0.99	8.22
Specific Heat		Cal/g•°C or Btu/lb <sub>m</sub> •°F	
@ 20°C	50 Wt%	0.77	
	100 Wt%	0.54	ļ
@ 100°C	50 Wt%	0.88	3
	100 Wt%	0.65	5
Thermal Conductivity		W/cm•°C	Btu/hr•ft•°
@ 20°C	50 Wt%	0.0034	0.198
	$100~\mathrm{Wt}\%$	0.0017	0.098
Vapor Pressure		mmHg	Psia
@ 20°C	50 Wt%	11.4	0.10
	100 Wt%	1.8	0.03
@ 100°C	50 Wt%	579.6	7.17
	100 Wt%	141.8	2.74
		dynes/cm	
Surface Tension		dynes	'cm

50 Wt%

50 Wt%

 $100~\mathrm{Wt}\%$ 

100 Wt%

48.0

38.2

36.5

28.4

@ 25°C

@ 100°C

<sup>&</sup>lt;sup>1</sup>Typical properties, not to be construed as specifications

Properties of Aqueous Solutions of GAS/SPEC SS-3 Specialty Amine

55-3











