

Applications Guide

Information by analytical technique

Analyser	Gas	Gas function	Flow rate (guide only)	Cylinder	Liquid
Chromatography					
FID	H2	Fuel	30-50 cc/min	ALPHAGAZ 1 or HPSG	
	Air	Flame gas	300-500 cc/min	ALPHAGAZ 1 or HPSG	
	H2	Carrier gas (capillary)	up to 10 cc/min	ALPHAGAZ 1 or HPSG	
	N2	Carrier gas (packed)	20-50 cc/min	ALPHAGAZ 1 or HPSG	
	N2	Make up gas	30-50 cc/min	ALPHAGAZ 1 or HPSG	
Total FID	H2	Fuel	5-50 cc/min	ALPHAGAZ 1 or HPSG	
	Air	Flame gas	50-500 cc/min	ALPHAGAZ 1 or HPSG	
TCD	He/H2/N2	Carrier gas	up to 50 cc/min	ALPHAGAZ 1 or HPSG	
ECD	N2	Carrier gas	up to 60 cc/min	ALPHAGAZ 1 or HPSG	
	N2	Make up gas	up to 100 cc/min	ALPHAGAZ 1 or HPSG	
FPD	H2	Fuel	60-90 cc/min	ALPHAGAZ 1 or HPSG	
	Air	Flame gas	90-150 cc/min	ALPHAGAZ 1 or HPSG	
NPD	H2	Carrier gas (capillary)	up to 50 cc/min	ALPHAGAZ 1 or HPSG	
	N2	Make up gas	up to 30 cc/min	ALPHAGAZ 1 or HPSG	
ATD	Air	Dry air purge	<2 L/min	HPSG	
AED	N2	Carrier gas	<1 L/min	ALPHAGAZ 1 or HPSG	
ELCD, HALL	H2	Reaction gas	70-200 cc/min	ALPHAGAZ 1 or HPSG	
PID	H2/He	Carrier gas	up to 60 cc/min	Available	
LCMS	Air	Nebuliser gas	18 L/min		
	N2	Curtain & sheath shield gas	5-40 L/min		Bulk/mini-bulk
SFC	CO2	Mobile phase	Up to 50 cc/min	HPSG	

HPSG = High Purity Specialty Gas

ALPHAGAZ 1 - branded product in HPSG range

Information by analytical technique

Analyser	Gas	Gas function	Flow rate (guide only)	Cylinder	Liquid
Spectroscopy					
NDIR or FTIR	N2/Air	Optic system purge	10-100 L/min	ALPHAGAZ 1 or HPSG	
NMR	Air	Lifting, spinning & ejecting	up to 300 L/min	ALPHAGAZ 1 or HPSG	
	He	Magnet cooling	100-500 L/year		Dewars/mini-bulk
	N2	Magnet cooling	1500-3000 L/year		Bulk/mini-bulk
ICP	Ar	Plasma	16 L/min	ALPHAGAZ 1 or HPSG	Bulk/mini-bulk
	N2	Purge gas	up to 10 L/min	ALPHAGAZ 1 or HPSG	
AA	Air	Oxidant gas	20-200 L/min	ALPHAGAZ 1 or HPSG	
	Ar	Furnace gas	1 L/min	ALPHAGAZ 1 or HPSG	
	N2O	Fuel	1-10 L/min	HPSG	
	Acetylene	Fuel	1-10 L/min	HPSG	
UV Fluo	N2/Ar	Purge gas	1-5 L/min	ALPHAGAZ 1 or HPSG	
Thermal analysis					
TGA	N2/Air	Furnace gas	100 cc/min	ALPHAGAZ 1 or HPSG	
	O2/H2	Process gas	Various	ALPHAGAZ 1 or HPSG	
DSC	Air	Air shield	100 cc/min	HPSG	
Other applications					
TOC	Air	Combustion gas	100-500 cc/min	ALPHAGAZ 1 or HPSG	
	N2	Carrier gas	50-700 cc/min	ALPHAGAZ 1 or HPSG	
	O2/H2	Furnace or purge gas	0.3 L/min	ALPHAGAZ 1 or HPSG	
TOD	N2	Carrier gas	300 cc/min	ALPHAGAZ 1 or HPSG	
Sample preparation	N2	Solvent evaporation	up to 130L/min	95-99%	Bulk/mini-bulk
Autosamplers	Air	Pneumatic controls	30 L/min	Clean & dry	
	N2	Sample injector	550 cc/min	ALPHAGAZ 1 or HPSG	
Circular Dichroism	N2		Various	ALPHAGAZ 1 or HPSG	
ELSD	N2/Air	Nebuliser gas	2-6 L/min	ALPHAGAZ 1 or HPSG	
Spark Spectro	N2	Optic purge	1-10 L/min	ALPHAGAZ 1 or HPSG	
	Ar	Plasma	0.5 L/min	ALPHAGAZ 1 or HPSG	

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