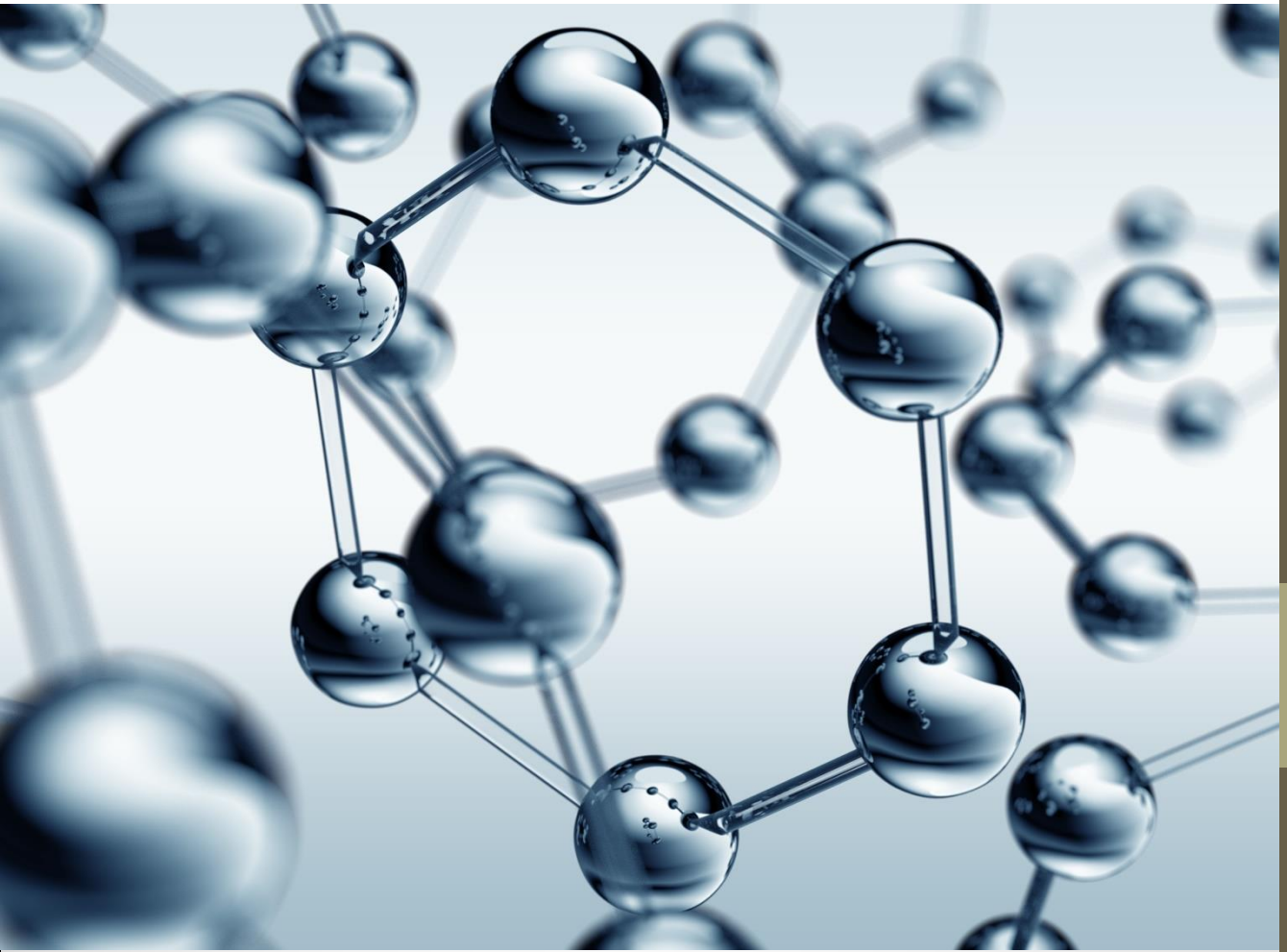


HIGH PURITY SOLVENTS



ABOUT EAM

Elite Advanced Materials Sdn Bhd (EAM) has been established to venture into the high purity chemicals business with Southeast Asia as the main targeted market. Leading with our proprietary purification process and quality management system, we only deliver premium quality solvents.

Being a local producer, we draw on advantages such as logistics and warehouse savings, enhanced supply chain, customised blends, committed technical support and tailored delivery methods to give the best value to our customers.

Our company believes in using knowledge and technological advancement to deliver results in today's fast changing environment. Our people strive to deliver only the best and most effective products to meet our customers' needs.

Our strengths;

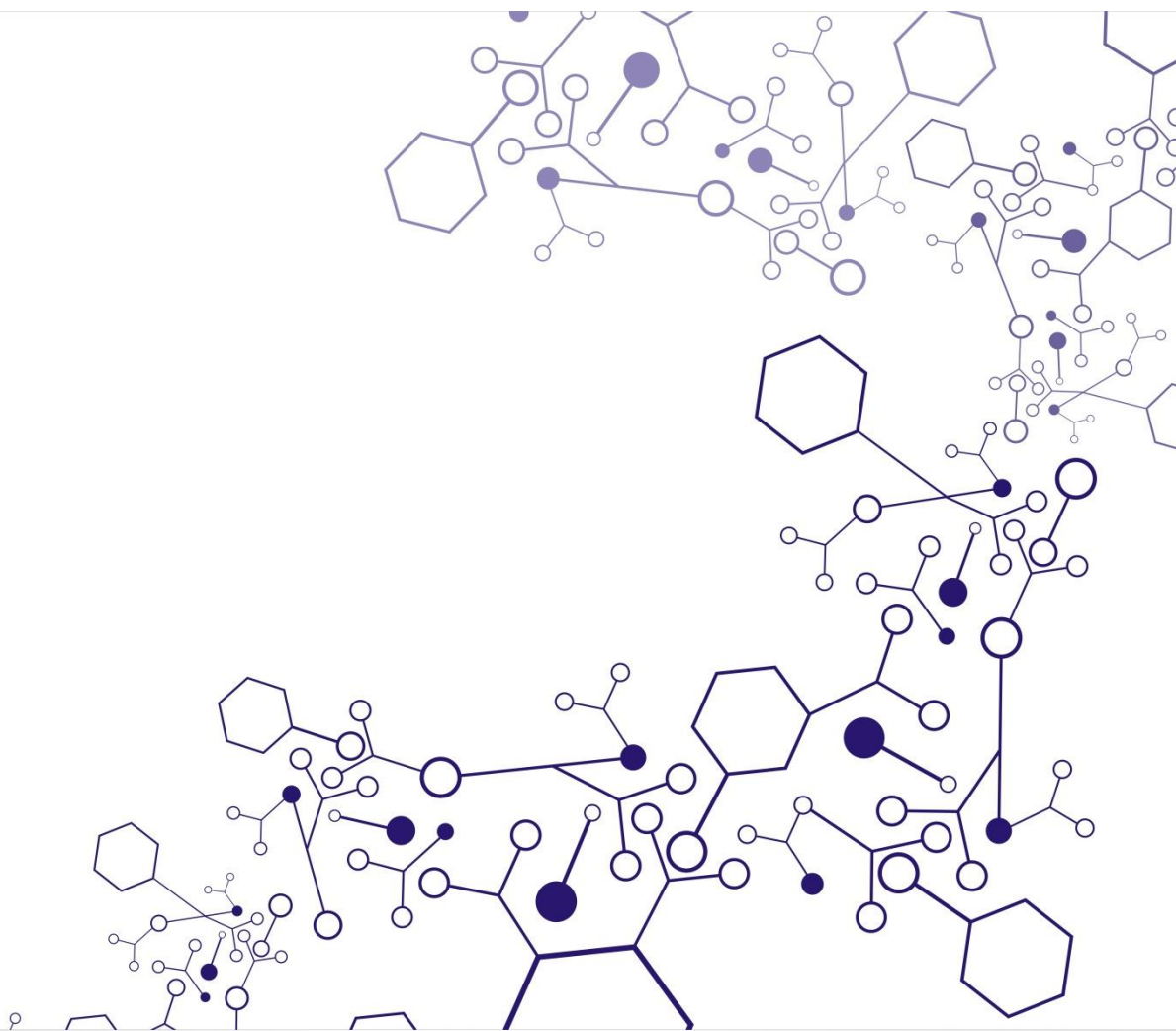
- Being a *specialised manufacturer* in high purity solvents, we deliver **reliable and high safety products**
- *Enhanced supply chain* together with logistic and warehouse saving to give more **competitive pricing** and **shorter lead time**
- *Fully equipped laboratory and capable technical service team* to work together with customers **to meet their stringent demands.**
- *Understand customers' needs* to provide personalised solutions so as to **improve their productivity**



SOLVENT SPECIFICATIONS

ACETONE	4
HEPTANE	5
HEXANE	6
ISOPROPYL ALCOHOL	7
METHANOL	8

4
5
6
7
8



ACETONE

Propan-2-one, Dimethyl Ketone

Physical Properties

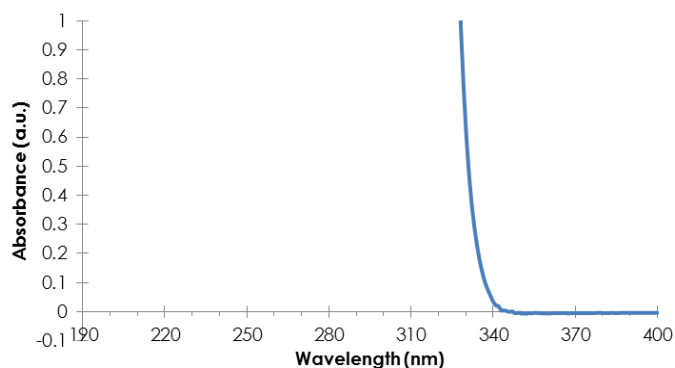
Molecular Formula	C ₃ H ₆ O	Viscosity (cP) at 25C	0.36
Molecular Weight	58.08	Flash point (°C)	-20
CAS Number	67-64-1	Autoignition Temperature (°C)	465
Boiling Point (°C)	56.3	Refractive Index (n _D)	1.359
Freezing Point (°C)	-94.7	UV cutoff (nm)	330
Density at 20°C	0.79	Solubility in water	Miscible

Acetone, HPLC Grade

Product Specifications

Assay by GC	≥ 99.9%
Water by Karl Fischer Titration	≤ 0.4%
Titration Acid	≤ 0.0003 meq/g
Titration Base	≤ 0.0006 meq/g
Residue After Evaporation	≤ 2 ppm
Permanganate Time	Pass
Solubility in Water	Pass
UV Absorbance:	
330nm	≤ 1.00
350nm	≤ 0.01
400nm	≤ 0.01

Typical UV Spectrum



Acetone, AR Grade

Product Specifications

Assay by GC	≥ 99.9%
Water by Karl Fischer Titration	≤ 0.4%
Titration Acid	≤ 0.0003 meq/g
Titration Base	≤ 0.0006 meq/g
Residue After Evaporation	≤ 2 ppm
Permanganate Time	Pass
Solubility in Water	Pass

HEPTANE

n-heptane

Physical Properties

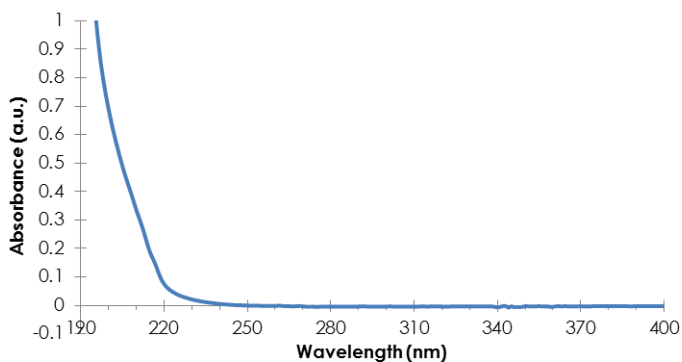
Molecular Formula	C ₇ H ₁₆	Viscosity (cP) at 25C	0.42
Molecular Weight	100.21	Flash point (°C)	-4.0
CAS Number	142-82-5	Autoignition Temperature (°C)	223
Boiling Point (°C)	98.4	Refractive Index (n _D)	1.387
Freezing Point (°C)	-90.6	UV cutoff (nm)	200
Density at 20°C	0.6837	Solubility in water	0.0003% (20° C)

Heptane, HPLC Grade

Product Specifications

Assay by GC	≥ 99.0%
Water by Karl Fischer Titration	≤ 0.01%
Residue After Evaporation	≤ 2 ppm
UV Absorbance:	
197nm	≤ 1.00
210nm	≤ 0.40
220nm	≤ 0.10
254nm	≤ 0.01

Typical UV Spectrum



Heptane, ACS Grade

Product Specifications

Appearance	Clear
Assay by GC	≥ 99.0%
Colour (APHA)	≤ 10
Water by Karl Fischer Titration	≤ 0.01%
Residue After Evaporation	≤ 5 ppm

HEXANE

n-hexane

Physical Properties

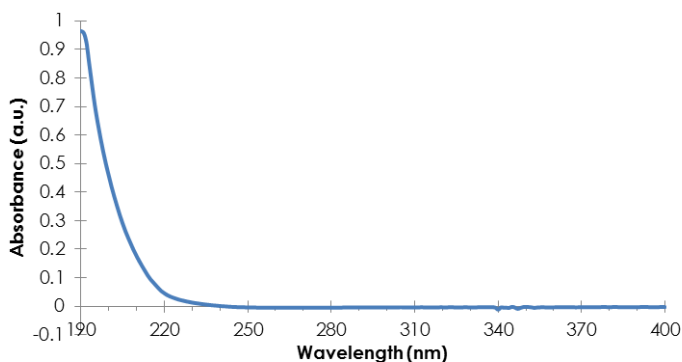
Molecular Formula	C ₆ H ₁₄	Viscosity (cP) at 25C	0.3
Molecular Weight	86.18	Flash point (°C)	-26
CAS Number	110-54-3	Autoignition Temperature (°C)	234
Boiling Point (°C)	68.7	Refractive Index (n _D)	1.375
Freezing Point (°C)	-95.3	UV cutoff (nm)	195
Density at 20°C	0.6548	Solubility in water	0.014 % (20° C)

Hexane, HPLC Grade

Product Specifications

Assay by GC	≥ 95%
Water by Karl Fischer Titration	≤ 0.01 %
Residue After Evaporation	≤ 2 ppm
UV Absorbance:	
195nm	≤ 1.00
210nm	≤ 0.20
220nm	≤ 0.08
254nm	≤ 0.008
280nm	≤ 0.005

Typical UV Spectrum



Hexane, ACS Grade

Product Specifications

Assay by GC	≥ 95.0%
Colour (APHA)	≤ 10
Titrate Acid	≤ 0.0003 meq/g
Water by Karl Fischer Titration	≤ 0.01%
Residue After Evaporation	≤ 3 ppm

ISOPROPYL ALCOHOL

2-propanol, Isopropanol, IPA

Physical Properties

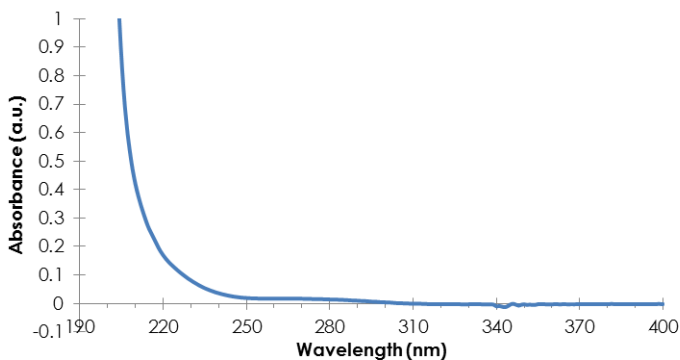
Molecular Formula	C ₃ H ₈ O	Viscosity (cP) at 25C	1.96
Molecular Weight	60.09	Flash point (°C)	11.7
CAS Number	67-63-0	Autoignition Temperature (°C)	399
Boiling Point (°C)	82.6	Refractive Index (n _D)	1.3776
Freezing Point (°C)	-89.0	UV cutoff (nm)	205
Density at 20°C	0.786	Solubility in water	Miscible

Isopropyl alcohol, HPLC Grade

Product Specifications

Assay by GC	≥ 99.9%
Titration Acid	≤ 0.0001 meq/g
Titration Base	≤ 0.0001 meq/g
Water by Karl Fischer Titration	≤ 0.06%
Solubility in Water	Pass
Residue After Evaporation	≤ 1 ppm
UV Absorbance:	
205nm	≤ 1.00
225nm	≤ 0.16
254nm	≤ 0.02
280nm	≤ 0.01

Typical UV Spectrum



Isopropyl alcohol, ACS Grade

Product Specifications

Assay by GC	≥ 99.9%
Titration Acid	≤ 0.0001 meq/g
Titration Base	≤ 0.0001 meq/g
Water by Karl Fischer Titration	≤ 0.1%
Solubility in Water	Pass
Residue After Evaporation	≤ 5 ppm

METHANOL

Methyl alcohol, Methyl hydrate

Physical Properties

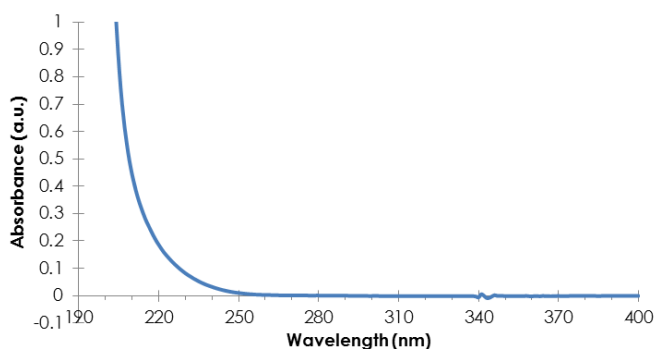
Molecular Formula	CH ₃ OH	Viscosity (cP) at 25C	0.545
Molecular Weight	32.04	Flash point (°C)	11
CAS Number	67-56-1	Autoignition Temperature (°C)	470
Boiling Point (°C)	64.7	Refractive Index (n _D)	1.331
Freezing Point (°C)	-97.6	UV cutoff (nm)	205
Density at 20°C	0.792	Solubility in water	Miscible

Methanol, HPLC Grade

Product Specifications

Assay by GC	≥ 99.9%
Water by Karl Fischer Titration	≤ 0.05%
Titration Acid	≤ 0.0003 meq/g
Titration Base	≤ 0.0001 meq/g
Permanganate Time	Pass
Solubility in Water	Pass
Residue After Evaporation	≤ 1 ppm
UV Absorbance:	
205nm	≤ 1.00
220nm	≤ 0.15
225nm	≤ 0.15
254nm	≤ 0.01
265nm	≤ 0.01

Typical UV Spectrum



Methanol, ACS Grade

Product Specifications

Appearance	Clear
Assay by GC	≥ 99.9%
Titration Acid	≤ 0.0003 meq/g
Titration Base	≤ 0.0002 meq/g
Permanganate Time	Pass
Water by Karl Fischer Titration	≤ 0.1%
Solubility in Water	Pass
Residue After Evaporation	≤ 3 ppm

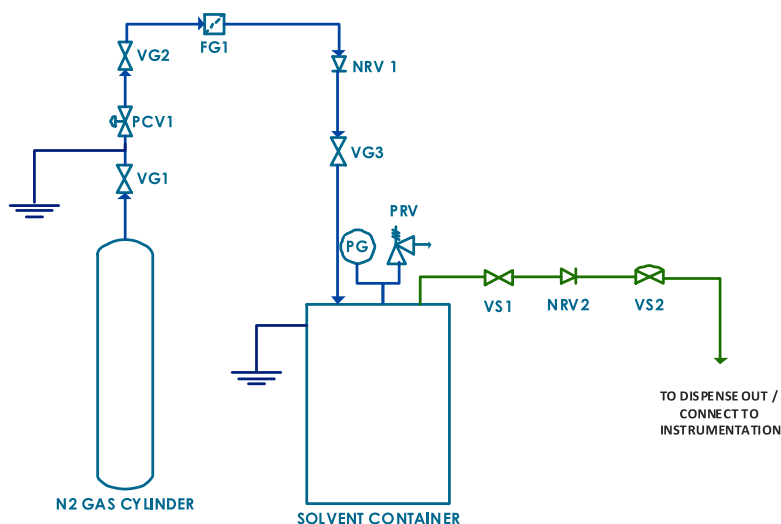
SOLVENT DISPENSING SYSTEM


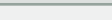



DISPENSING SYSTEM BENEFIT AND COST ANALYSIS

Apart from the conventional amber glass bottles packaging, EAM also offers customised high purity solvent dispensing system to customers who want more. These returnable and recyclable containers have the following features and benefits:

- Reusable container to reduce carbon footprint
- Serial number container tracking systems to trace product integrity
- Enhance safety of users by reducing solvent exposure and eliminate the risk of glass breakages
- Maintaining product quality longer by reducing exposure to environment
- Reducing storage space required for chemicals
- Cost saving on chemical glass bottles disposal



VG1	Main Gas Supply Valve
PCV1	Pressure Regulator
VG2	Regulator Gas On/Off Valve
FG1	Gas Filter
NRV1	Gas Check Valve
VG3	Gas Inlet Valve
PG	Pressure Gauge
PRV	Pressure Relief Valve
VS1	Main Solvent Supply Valve
NRV2	Solvent Check Valve
VS2	Solvent Outlet Valve
	Electrical Ground
	Solvent Line
	Gas Line

CASE STUDIES: METHANOL

Category		~ 1000 liter/year	~2,000 liter/year	~3,000 liter/year
Typical methanol Price	RM 25.00/L	RM25,000	RM50,000	RM75,000
Discount on Methanol	RM 2.50/L	RM 2,500	RM 5,000	RM 7,500
Saving on glass disposal	RM2.00/bottle	RM 800	RM 1,600	RM 2,400
Total Saving Costs		RM 3,300	RM 6,600	RM 9,900
% Cost Saving		13%	13%	13%

NOTES



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