

PRODUCT DATA SHEET

Product Name : N-Par series
Established Date

2021. 01. 01

Product general Introduction

N-Par single cut paraffins are

high purity linear paraffins and widely used as pure organic phase change material (PCM)
 This energy storage material utilizing the processes of phase change between solid and liquid
 (melting and congealing) to store or release large quantities of thermal energy at nearly constant temperature.



Applications

Latent heat Storage

- Cold Chain & Packaging
- Thermal Energy Storage
- Electronics



- Building & Construction
- Refrigeration & Equipment
- Automotive



- HVAC
- Textile
- Others



Product advantage

- high thermal energy storage capacity
- stable performance through the phase change cycles
- no supercooling effect and no precipitate out
- chemically inert, ecologically friendly and virtually unlimited product life

Test Method / Typical Value

	Unit	N-Par 8	N-Par 10	N-Par 12	N-Par 13	N-Par 14	N-Par 15	N-Par 16
Basic information								
Chemical Name		Octane	Decan	Dodecane	Tridecane	Tetradecane	Pentadecane	Hexadecane
Appearance at Ambient temperature		Clear, colourless Liquid	Clear, colourless Liquid	Clear, colourless Liquid	Clear, colourless Liquid	Clear, colourless Liquid	Clear, colourless Liquid	Clear, colourless Liquid
Important properties								
Purity	wt, %	Min. 99	Min. 99	Min. 99	Min. 99	Min. 99	Min. 99	Min. 99
Onset temperature	°C	- 60 ~ -58	- 30 ~ -28	- 12 ~ -10	- 7 ~ -5	4~6	8~10	17~19
Latent heat	J/g	Min. 150	n/a	Min. 200	Min. 200	Min. 180	Min. 220	Min. 220
Additional properties								
Boiling point (5%)	°C		170	209	226	244	259	259
Flash point	°C		49.5	85	99	113	123	123
Color	Saybolt	n/a	+30	+30	+30	+30	+30	+30
Viscosity, 40°C	cSt		n/a	1.42	1.72	2.08	2.46	2.46
Sulfur, ppm	ppm		1 ↓	1 ↓	1 ↓	1 ↓	1 ↓	1 ↓
Aromatics	wt, %		1 ↓	1 ↓	1 ↓	1 ↓	1 ↓	1 ↓

(*) For odd-numbered Parafaiin (N-Par 13, N-Par 15) adds up to all Latent Heat

(**) Latent heat of N-Par 10 is checking now