

The diagram illustrates various high vacuum pump fluids and greases, arranged in a circular pattern against a space background. The central cluster includes:

- Myers Vacuum**: Logo featuring a stylized 'M' with arrows.
- Krytox®**: Logo in purple text.
- Dalten Electric Heating Company**: Logo in red text.
- M&I MATERIALS**: Logo with a red diamond symbol.
- INLAND™**: Logo with a red and black triangle.
- APIEZON™**: Logo with an orange diamond symbol.

Surrounding the central cluster are chemical symbols in white circles:  $F_2$ ,  $CH_4$ ,  $H_2S$ ,  $Xe$ ,  $He$ ,  $NH_3$ , and  $H_2$ . Product images of various containers (drums, cans, bottles) are interspersed within the hexagonal cells.

## High Vacuum Pump Fluids and Greases

## Vacuum Greases

Product	Description	Vapour Pressure @ 20/25 °C (Torr)	Working Temperature °C	Pack Sizes
<b>Dow Corning High Vacuum Grease</b>	The most popular silicone grease for vacuum applications. Non-melting, used for lubricating and sealing. Good high temperature stability.	$1 \times 10^{-8}$	-40 to +200	50 g tubes (Box of 10) 5kg
<b>Celvacene</b>	A general purpose hydrocarbon grease for most vacuum applications. Light, medium or heavy grades available	$1 \times 10^{-6}$	Up to 90, 120 & 130 respectively	4oz 16oz
<b>Apiezon H - Grease</b>	Low to medium vacuum range, stiffens above 110 °C	$1.7 \times 10^{-9}$	Up to 240	25g
<b>Apiezon L - Grease</b>	Specifically designed for vacuum use but also extensively used for non-vacuum purposes in a variety of industrial and scientific applications.	$7 \times 10^{-11}$	10 – 30	25g 50g
<b>Apiezon M - Grease</b>	Specifically designed for vacuum use but also extensively used for non-vacuum purposes in a variety of industrial and scientific applications.	$1.7 \times 10^{-9}$	10 – 30	25g 100g
<b>Apiezon N - Grease</b>	Specifically designed for vacuum use but also extensively used for non-vacuum purposes in a variety of industrial and scientific applications. Low temperature performance for cryogenic applications.	$6 \times 10^{-10}$	-270 to +30	25g
<b>Apiezon T - Grease</b>	A hydrocarbon grease for multipurpose sealing applications in the low to medium vacuum range at medium temperature range. Excellent 'gettering' action.	$4.6 \times 10^{-9}$	10 to 120	25g
<b>Apiezon Q - Compound</b>	Sealing compound for temporary repair of vacuum leaks.	$1 \times 10^{-4}$	-10 to 30	1kg
<b>Apiezon AP100</b>	A silicone free vacuum grease containing PTFE for ultra-high vacuum applications at ambient temperatures.	$7 \times 10^{-11}$	10 to 30	50g
<b>Apiezon AP101</b>	A silicone free anti-seize grease blended with PTFE for use in low to medium vacuum ranges.	$1 \times 10^{-5}$	-40 to +180	50g
<b>Apiezon Wax W</b>	General purpose wax for joint sealing and mounting. Softens at 80 – 90 °C.	$4.5 \times 10^{-9}$	-10 to 75	25 x 20g
<b>Apiezon PFPE 501</b>	Perfluorinated vacuum grease for aggressive conditions.	$1.3 \times 10^{-12}$	-15 to 250	100g
<b>DuPont™ Krytox® GPL 227</b>	A perfluorinated polyether grease that gives excellent resistance to chemicals and aggressive gases. With added anti-corrosion agent.	$6 \times 10^{-9}$ @ 38 °C	-30 to +288	2oz 8oz 0.5kg
<b>DuPont™ Krytox® LVP</b>	Low Vapour pressure PFPE grease for high vacuum applications.	$1 \times 10^{-13}$	-15 to +300	2oz 8oz 0.5kg

## Diffusion Pump Fluids

Product	Description	Ultimate Pressure @ 25 °C (Torr)	Viscosity cSt	Boiling Point @ 0.01 Torr (°C)	Specific Gravity	Pack Sizes
<b>Convoil 20</b>	A cost effective highly purified hydrocarbon vacuum fluid for diffusion and vapour booster pumps that offers many of the characteristics of more expensive fluids but at a very competitive price.	$1 \times 10^{-6}$	71 @ 40°C	120	0.88	5L 20L 208L
<b>Apiezon AP 201</b>	Specially formulated white hydrocarbon oil for vapour booster pumps. Developed in conjunction with Edwards specifically for their 30B5 and 18B4 vacuum pumps.	$4 \times 10^{-6}$ @ 20°C	22 @ 40°C	165 @ 1 Torr	0.885	4L 20L
<b>Octoil 5</b>	A high purity molecularly distilled synthetic ester with a wide range of vacuum applications.	$1 \times 10^{-8}$	18 @ 28°C	141	0.98	3.8L (1 USG)
<b>CVC 2</b>	Phenylmethylsiloxanes formulated as a diffusion pump fluid for pumping large gas loads. Used extensively where rapid cycling is required.	$5 \times 10^{-7}$	45 @ 25°C	180	1.07	500cc 1kg 5kg 20kg 200kg
<b>CVC 4</b>	Tetramethyltetraphenyltrisiloxane based fluid showing excellent heat, oxidation and radiation resistance. It provides fast pump down times with good ultimate pressure characteristics.	$1 \times 10^{-8}$	40 @ 25°C	215	1.07	
<b>CVC 5</b>	Pentaphenyltrimethyltrisiloxane based fluid with excellent pressure characteristics, ideal for ultra-high vacuum applications. Extremely low back streaming rate.	$3 \times 10^{-9}$	175 @ 25°C	245	1.09	
<b>Santovac 5</b>	Ultra-pure polyphenylether, operates efficiently, economically and safely producing ultimate pressures in the UHV range.	$4 \times 10^{-10}$	370 @ 40°C	295 @ 0.5 Torr	1.19	100cc 500cc

# Mechanical Pump Fluids

Product	Description	Ultimate Pressure @ 25 °C (Torr)	Viscosity cSt	Specific Gravity
<b>GBR 16</b>	Based on a severely hydro-treated mineral oil suitable for rotary vane pumps. ISO 32.	10 <sup>-4</sup>	32 @ 40 °C	0.870
<b>GBR 45</b>	A synthetic hydrocarbon, PAO, especially recommended for hot running rotary vane pumps.	10 <sup>-7</sup>	53 @ 40 °C	0.830
<b>GBR 60</b>	Economy grade hydrocarbon oils suitable for rotary vane pumps. ISO 68 and 100 respectively.	10 <sup>-3</sup>	68 @ 40 °C	0.870
<b>GBR 90</b>		10 <sup>-4</sup>	100 @ 40 °C	0.882
<b>GBR 70</b>	Water white mineral oils specially formulated for their hydrophobic properties. Allows for the pumping of water vapour without emulsification. Excellent chemical stability in aggressive conditions. ISO 68 and 100 respectively.	10 <sup>-6</sup>	68 @ 40 °C	0.860
<b>GBR 110</b>		10 <sup>-6</sup>	100 @ 40 °C	0.870
<b>TW 7</b>	Solvent refined technical white oil recommended for applications where exposure to reactive or corrosive gases is prevalent. ISO 68.	10 <sup>-6</sup>	68 @ 40 °C	0.860
<b>GBR 19</b>	A highly purified hydrocarbon fluid formulated with anti-oxidant additives for rotary pump use.	10 <sup>-5</sup>	55 @ 40 °C	0.870
<b>GBR 101</b>	Formulated from refined mineral oils with an anti-oxidant additive for use in direct drive pumps. ISO 100.	10 <sup>-4</sup>	100 @ 40 °C	0.890
<b>GBR – HV</b>	Refined hydrocarbon mineral oil suitable for large rotary piston and booster pumps with anti-oxidant, anti-rust and anti-foaming additives. ISO 150.	10 <sup>-4</sup>	150 @ 40 °C	0.887
<b>Supervac 15</b>	A narrow cut of Petro-Canada's HT hydrocracked base oils and a patented additive system to provide extremely low vapour pressures for maximum pump efficiency. The anti-oxidant system delivers extended lubricant life under conditions of high pump load and elevated operating temperatures.	10 <sup>-7</sup>	38 @ 40 °C	0.860
<b>Supervac 19</b>		10 <sup>-8</sup>	55 @ 40 °C	
<b>Supervac 20</b>		10 <sup>-8</sup>	100 @ 40 °C	
<b>GBR 70 Ultra</b>	Narrow cut severely hydrocracked base oil with anti-oxidant additives to provide extremely low vapour pressures for maximum pump efficiency. ISO 68.	10 <sup>-8</sup>	68 @ 40 °C	0.860
<b>Anderol 495</b>	Diester based fluid for use in hot running pumps or where aggressive gases are being processed. Can also be used as a compressor lubricant. ISO 32, 68 and 100 respectively.		32 @ 40 °C	0.92
<b>Anderol 497</b>			68 @ 40 °C	0.95
<b>Anderol 555</b>			100 @ 40 °C	0.96
<b>DuPont™ Krytox® 1506</b>	These perfluorinated polyethers are chemically inert and are recommended for pumping pure oxygen, explosive and corrosive gases, giving excellent performance and protection. For use in mechanical pumps, mechanical booster pumps and dry pump gear boxes.  Available in 1kg (500 cc) packs.	4x10 <sup>-7</sup> @ 20 °C	15.5 @ 50 °C	1.90
<b>DuPont™ Krytox® 1514</b>		2x10 <sup>-7</sup> @ 20 °C	32 @ 50 °C	
<b>DuPont™ Krytox® 1525</b>		1x10 <sup>-7</sup> @ 20 °C	52 @ 50 °C	
<b>DuPont™ Krytox® 1531</b>		1x10 <sup>-7</sup> @ 20 °C	63 @ 50 °C	

Mechanical Pump fluids are available in standard pack sizes unless otherwise stated: 5 Litre, 20 Litre, 200-209 Litre.  
Tables indicate typical properties and do not constitute specifications.

*GBR Technology - a partner to the vacuum industry since 1993*

**GBR Technology has been a leading supplier of fluids and greases to the the vacuum industry since 1993. With our roots in CVC Scientific, we've a long history and distinguished heritage. Quality, service and reliability coupled with the competitive pricing of an independent fluid and grease specialist are our hallmarks. We strive to maintain these advantages and not to take our customer loyalty for granted.**

**This brochure details our wide range of products, which come from the manufacturers we represent (often as fully supported authorised distributors) as well as our own high quality brands.**

**Reclaim Service:**

We can offer a reclaim service for spent silicone diffusion pump fluids. Reclamation removes contaminants from the fluid by molecular distillation and gives typical yields of between 75% and 90%. Performance of reclaimed fluid matches that of new. Please contact us for details.

**Other Products:**

GBR offer a number of spares and components for high vacuum systems. In addition, we offer a full range of hydrocarbon, silicone and fluorinated lubricant oils and greases for all your static plant and mobile equipment needs.



**GBR Technology Ltd**  
Units 6-8, Jupiter House,  
Calleva Park, Aldermaston,  
Reading, Berkshire, RG7 8NN

Telephone: +44 (0)118 982 0567  
Fax: +44 (0)118 982 0590  
Email: [info@gbrtech.co.uk](mailto:info@gbrtech.co.uk)  
Web: [www.gbrtech.co.uk](http://www.gbrtech.co.uk)

