

Metal Extractants

1)

Products	Formula mol.weight	Specifications						Typical Properties			Containers	Description and Uses
		Appearance	Color APHA	Specific Gravity 20/20°C	Purity wt%	Refractive Index n_D^{25}	Acid value KOH mg/g	Flash Point °C	Viscosity mPa·s/25°C	Boiling Point °C		
PC-88A 2-Ethylhexyl phosphonic acid <div style="text-align: center;"> $\begin{array}{c} \text{C}_8\text{H}_{17} \\ \diagup \\ \text{O}=\text{P}-\text{OC}_8\text{H}_{17} \\ \diagdown \\ \text{OH} \end{array}$ </div>	306	Colorless to light yellowish clear liquid	—	0.952 ± 0.015	95.0min.	1.449 ± 0.003	—	195	35	(Acid value KOH mg/g) 185	180kg Drum	Developed and patented by Daihachi. (1) Extraction of cobalt from sulfuric acid solution containing cobalt and nickel. (2) Extraction and separation of rare earths. (3) Extraction of indium, molybdenum and others.
TBP Tributyl phosphate <div style="text-align: center;"> $\text{O}=\text{P}(\text{OC}_4\text{H}_9)_3$ </div>		Colorless clear liquid	30max.	0.978 ± 0.003	(99min.)	(Heating Loss % 125°C 3hrs) 1.5max.	0.07max.	160	3.3	289	180kg Drum	Forming solvated compounds with metal complex in nitric acid solution. (1) Separation of uranium and plutonium from spent nuclear fuel (Purex process). (2) Separation of rare earths. (3) Recovery of nitric acid and hydrofluoric acid from waste pickling acids.

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SFI-6 Dihexyl sulfide <div style="text-align: center;"> $\text{C}_6\text{H}_{13}\cdot\text{S}\cdot\text{C}_6\text{H}_{13}$ </div>	202	Colorless clear liquid	30max.	0.842 ± 0.003	96.0min.	0.10max.	116	2.2	—	150kg Drum	Stable to hydrolysis in hydrochloric acid solution. (1) Separation of palladium from platinum. (2) Extraction of chloride complex ions of gold, silver, copper, mercury and others.
SFI-6R Dihexyl sulfide <div style="text-align: center;"> $\text{C}_6\text{H}_{13}\cdot\text{S}\cdot\text{C}_6\text{H}_{13}$ </div>	202	Colorless clear liquid	—	0.842 ± 0.003	99.0min.	0.05max.	116	2.2	—	150kg Drum	For separation of palladium and platinum.