

高效镍钴分离萃取剂-----AD-290

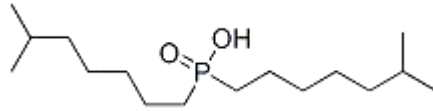
■ **活性成分**：二(2, 4, 4-三甲基戊基)膦酸

■ **CAS No.**：83411-71-6

■ **分子式**：C₁₆H₃₅O₂P

■ **分子量**：290.42 (按 1987 年国际原子量表)

■ **分子结构图**：



■ **用途**：

AD-290 是一种在硫酸盐和氯化物介质中对钴、镍分离具有很高选择性的新型酸性磷类萃取剂。

由于 AD-290 的活性成分为有机膦酸，金属萃取是以阳离子交换机理实现，AD-290 除了在 Ni 存在下选择性地萃 Co 外，在不同的溶液 PH 值下，它也可以萃取其他金属离子。AD-290 可以完全溶解于芳香族或脂肪族稀释剂中，对加热、酸、碱均很稳定。AD-290 不仅用于镍、钴的萃取分离，同时也适用于稀土、镓(Ga)、铟(In)、钼(Mo)、锗(Ge)、锆(Zr)等金属的萃取分离。

■ **包装**：200 公斤塑桶。

■ **贮存**：运输时小心轻放，严防撞击，严禁明火。贮存在阴凉、通风、干燥的仓库中，注意防水、防雨。

■ **规格**：

分析项目	质量指标
二(2, 4, 4-三甲基戊基)膦酸	≥95%
外观	无色到浅琥珀色
比重 (24℃)	0.93
粘度 (25℃)	143cP
(50℃)	41cP
在水中溶解度 (PH=3.0)	21mg/L
沸点	300℃ 以上
凝固点:	-31℃
闪点	108℃

■ **三种镍钴分离萃取剂性能比较**：

萃取剂	分离系数 $\beta_{Co/Ni}$
P204	14
P507	280
AD-290	7000

Extractant for the Separation of Cobalt from Nickel with Extremely High Separation Coefficient-----AD-290

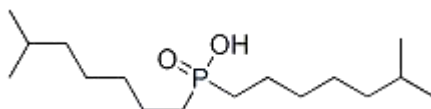
■ **Active component:** bis(2,4,4-trimethylpentyl) phosphinic acid

■ **CAS No.:** 83411-71-6

■ **Molecular Formula:** C₁₆H₃₅O₂P

■ **Molecular Weight:** 290.42 (International Atomic Weight Table,1987)

■ **Structural formula:**



■ **Uses:**

AD-290 has proven to be an excellent extractant for the separation of cobalt from nickel from both sulfate and chloride media.

Since the active component of AD-290 extractant is a phosphinic acid, metals are extracted through a cation exchange mechanism. a variety of other cations can be extracted by AD-290 extractant depending upon the solution pH. As a result, AD-290 can not only be used for the separation of cobalt from nickel, but also for the separation of rare earths, and the extraction of Ga, In, Mo, Ge, Zr, etc.

AD-290 extractant is totally miscible with common aromatic and aliphatic diluents, and is extremely stable to heat, acid and alkalis.

■ **Package:** 200 Kg/plastic drum.

■ **Storage:** Avoid impact, water and fire. Keep cool, dry and ventilative.

■ **Quality index:**

Analysis Item	Quality Index
Bis(2,4,4-trimethylpentyl)phosphinic acid:	≥ 95%
Appearance:	Colorless to light amber liquid
Specific weight(24°C):	0.93
Viscosity (25°C):	143cp
(50°C):	41cp
Solubility (PH = 3.0):	21mg/L
Boiling Point :	>300°C
Freezing point:	-31°C
Flash point:	108°C

■ **Comparison between P204, P507 and AD-290**

Extractant	Separation Coefficient ($\beta_{Co/Ni}$)
P204	14
P507	280
AD-290	7000

