

# Allessan® CAP

## Chemical Characteristics

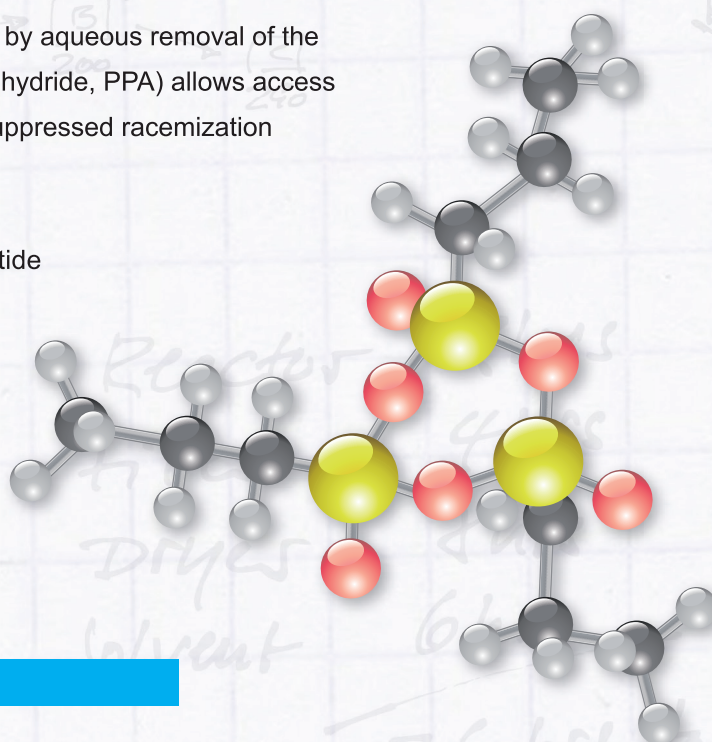
Molecular Weight: 318 g/mol  
 Empirical Formula:  $[C_3H_7O_2P]_3$   
 CAS-No.: 68957-94-8

Allessan® CAP is listed in REACH by Allessa GmbH

## A PHOSPHORUS BASED WATER REMOVAL AGENT

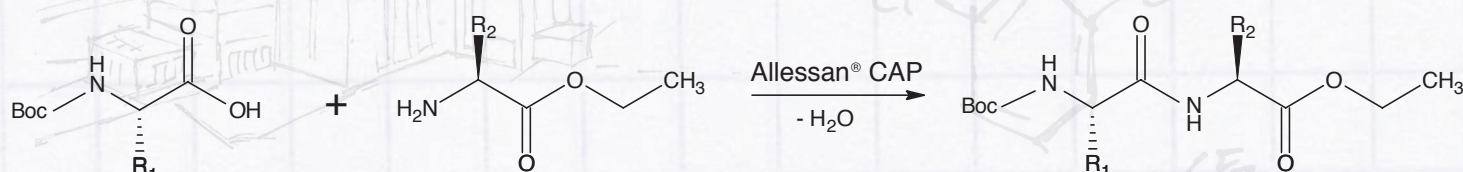
Enabling mild reaction conditions as well as simple work up by aqueous removal of the coupling reagent, Allessan® CAP (propylphosphonic acid anhydride, PPA) allows access to very effective peptide syntheses, combined with highly suppressed racemization compared to other reagents.

- **Allessan® CAP** is used in esterifications, amidations, peptide couplings, nitrile formations and many others.
- The pharmaceutical industry uses Allessan® CAP mainly in the synthesis of peptides as active pharmaceutical ingredients or advanced building blocks.



## DELIVERY FORMS

- Allessan® CAP is typically offered as a concentrated (min. 50 weight %) solution in various kinds of organic solvents, such as: EtOAc, THF, DMF.
- We are flexible in adopting the delivery form depending on customer needs.
- Packaging:  
 5 L, 50 L, 200 L steel drums with PE inliners or twinlock drums.



We live know-how.



## THE MANY ADVANTAGES OF ALLESSAN® CAP

Compared to other coupling agent alternatives such as DCC, HOBt, HBTU and PyBOP, the benefits of Allessan® CAP are:

### ■ Easy reactions:

Allessan® CAP reacts at very mild reaction conditions.

### ■ Preserved stereochemistry:

Allessan® CAP does not change the configuration of optically active centers.

### ■ Convenient handling:

Dosing of the liquid Allessan® CAP formulations is technically much easier and safer than the addition of solid alternative reagents. Remnants of Allessan® CAP can be removed completely and efficiently from the reaction mixture by simple water washes.

### ■ Low toxicity:

Allessan® CAP has much lower toxicity and very low sensitization potential.

### ■ Excellent safety profile:

Allessan® CAP shows high thermal stability and no decomposition.

### ■ Affordable economics:

Allessan® CAP yields better economics.

### ■ Long shelf life:

Under typical storage conditions Allessan® CAP has a very long shelf life (minimum 36 months) and does not require special storage.



## SPECIFICATION AND ANALYTICAL DATA

No	QUALITY CHARACTERISTICS / PARAMETER / CONTENT	ANALYTICAL METHOD	UNIT	SPECIFIED VALUE/ AREA	REMARKS
1	Appearance	visual	–	clear solution	CoA
2	Active content	Calculation	% m/m	min. 50	CoA
3	Solvent content	GC	% m/m	40 - 44.5	CoA
4	Content of solvent free Allessan CAP*	Calculation	% m/m	55.5 - 60	CoA
5	Hydrogen chloride content of Allessan CAP solution	IC	%	< 0,1	Inf

\* Content of solvent free Allessan CAP = 100 - solvent content