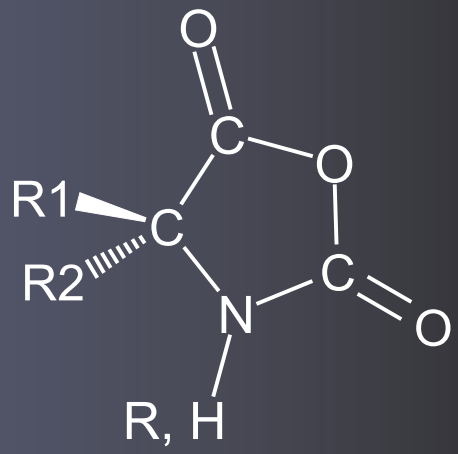
NCA: N-CarboxyAnhydride

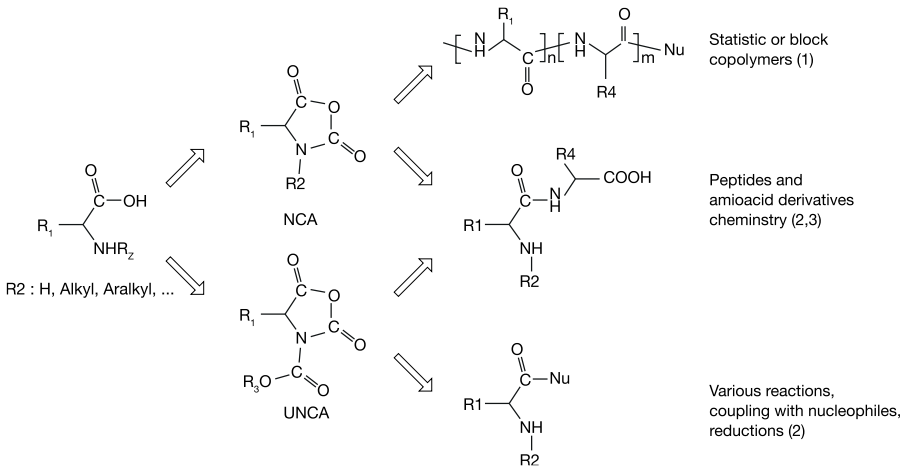
N-Carboxyanhydride of ∝-aminoacids are either monomers for Ring Opening Polymerization (ROP) or building blocks for aminoacid coupling with nucleophiles (see references below).

ISOCHEM guarantees **high standard purity NCA** with suitable packaging, logistic and a technical support to its customers **from gram to tenth of tons quantities**.

The reactivity of NCA's requires careful follow-up. Isochem provides recommendation for packaging, storage and handling



APPLICATION OF NCA'S



(1) R. Kricheldorf, Angew. Chem. Int. Ed., 2006, 45, 5752-5784 ; Example: Glatimarer acetate, Drug of the future 1995, 20(2), 139-141
(2) H. R. Kricheldorf, Makromol. Chem. 1977, 178, 905 ; W. D. Fuller Pat. Bioresearch US 5028693; W. D. Fuller, J. Am. Chem. Soc, 1990, 112, 7414; Example: Synthesis of valgancyclovir: Syntex Inc US 6040446
(3) Examples: Synthesis of Saquinavir and Nelfinavir intermediate EP1104755; Synthesis of Iprovalicarb W02002/06034; Synthesis of Perindopril EP1362864

THE KEY SOLUTION PROVIDER

ISOCHEM

NCA: N-CarboxyAnhydride

ISOCHEM'S NCA TRANSPORTATION

1- Frigipack

Short time transportation (< 48h):
Bag and dry ice in Frigipack
Long time transportation (> 48h):
Bags and dry ice(**) in insulated box

2 - Insulated Box

Drum and dry ice(*) loaded in insulated box with pallet handling. Includes temperature monitoring set(**)

3 - Reefer container

Drum with pallet handling in reefer container. Includes temperature monitoring set(**)

(*) load of 2 Kg of dry ice per Kg of NCA ensures -20°C temperature over more than 5 days
(**) temperature monitoring to be sent back to ISOCHEM after delivery

ISOCHEM'S NCA: STABILITY AND STORAGE

Temperature: For long storage, most of them must be kept at -20°C +/-5°C
Atmosphere: Free of any moisture, under nitrogen
Shelf life: (detailed data available on request)

- Long time storage: -20°C +/-5°C > 18 months
- Short time storage: 0 to + 5°C: from few days to few weeks depending on the NCA

WARNING: The chemical quality of NCAs is a key factor of the stability. Isochem delivers suitable and consistent quality of NCA. Any contamination by moisture or chemicals especially nucleophile species initiates polymerization.

ISOCHEM'S NCA: HANDLING

Allow the package to warm up to room temperature before opening (approximate time: 1 h for grams, 5 h for kilograms and 15 h for 10-40 kilograms).

Open and handle under strict nitrogen atmosphere.

One shot use of the full packaged quantity is highly recommended. In case of partial use, the package should be re-sealed under nitrogen and properly and stored back at -20°C as soon as possible. Repeating such operations significantly reduces the shelf life.

N-CARBOXYANHYDRIDE (NCA)		
Amino Acid	**Amino Acid-NCA**	**CAS#**
Alanine	Ala-NCA	2224-52-4
	DL-Ala-NCA	30291-41-9
Aspartic acid	Asp(OBzl)-NCA	13590-42-6
EPAL	EPAL-NCA	84793-24-8
Glutamic acid	Glu(OBzl)-NCA	3190-71-4
	Glu(OMe)-NCA	1663-47-4
	Glu(OtBu)NCA	86409-29-2
Glycine	Gly-NCA	2185-00-4
Isoleucine	Ile-NCA	45895-90-7
Leucine	Leu-NCA	3190-70-3
	ter-Leu-NCA	62965-56-4
Lysine	Lys(Boc)-NCA	33043-60-6
	Lys(TFA)-NCA	42267-27-6
	Lys(Z)-NCA	1676-86-4
Phenylalanine	Phe-NCA	14825-82-2
Proline	Pro-NCA	45736-33-2
Sarcosine	Sar-NCA	5840-76-6
Tyrosine	Tyr-NCA	3415-08-5
Valine	Val-NCA	24601-74-9

URETHANE-N-CARBOXYANHYDRIDE (UNCA)		
Amino Acid	**Amino Acid-UNCA**	**CAS#**
Glutamic acid	Z-Glu(OBzl)NCA	161990-08-5
Isoleucine	Boc-Ile-NCA	145929-76-6
	Fmoc-Ile-NCA	129288-41-1
	Moc-Ile-NCA	-
	Z-Ile-NCA	146286-84-2
Leucine	Fmoc-Leu-NCA	125814-21-3
	Z-Leu-NCA	125814-24-6
Valine	Boc-Val-NCA	141468-55-5
	Fmoc-Val-NCA	129288-47-7
	Moc-Val-NCA	-
	Z-Val-NCA	158257-41-1

Contact

Xavier JEANJEAN
Tel.: +33(1) 64 99 05 50
Fax: +33 (0)1 64 99 05 69
email: x.jeanjean@fr.isochem.eu
32, rue Lavoisier
91710 Vert-Le-Petit FRANCE

www.isochem.eu

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THE KEY SOLUTION PROVIDER

Les Créations Philippe Toumire - Photos: Isochem

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