

Fermentation Products & Their Derivatives (1/2)

Product Name	Structural Formula	Typical Properties	End Uses	Remark
D-TA D-Tartaric acid CAS No. 147-71-7 EINECS: 2056956 TSCA: Registered		Appearance: White powder Assay: 99.0% Min. Optical Purity 99.0%e.e. Min.	Optical resolution agent Asymmetric synthesis catalyst Chiral intermediate for pharmaceuticals and agrochemicals	C
D-Ala D-Alanine CAS No. 338-69-2 EINECS: 2064181 TSCA: Registered		Appearance: White powder Assay: 99.0% Min. Optical Purity 99.0%e.e. Min.	Chiral intermediate for pharmaceuticals and agrochemicals Materials for peptides	C
D-AlaOH D-Alaninol CAS No. 35320-23-1 EINECS: - TSCA: -		Appearance: Colorless to pale yellowish liquid Assay: 99.0% Min. Optical Purity 99.0%e.e. Min.	Chiral intermediate for pharmaceuticals and agrochemicals	D
D-AlaEt·HCl D-Alanine ethylester hydrochloride CAS No. 6331-09-5 EINECS: - TSCA: -		Appearance: White powder Assay: 99.0% Min. Optical Purity 99.0%e.e. Min.	Chiral intermediate for pharmaceuticals and agrochemicals	D
Pyr·Na Sodium pyruvate CAS No. 113-24-6 EINECS: 2040224 TSCA: Registered		Appearance: White powder Assay: 99.0% Min.	Medium of animal cell culture Material for pharmaceuticals, agrochemicals and diagnostic reagent Intermediate for flavors and fragrances	C
Pyr·Et Ethyl pyruvate CAS No. 617-35-6 EINECS: 2105112 TSCA: Registered		Appearance: Colorless to pale yellowish liquid Assay: 98.0% Min.	Material for Pharmaceuticals and agrochemicals Electronics solvent Intermediate for flavors and fragrances	C
Pyr·Me Methyl pyruvate CAS No. 600-22-6 EINECS: 2099874 TSCA: -		Appearance: Colorless to pale yellowish liquid Assay: 98.0% Min.	Material for dyestuff, pharmaceuticals and agrochemicals	D

Remark : Stage [C=Commercial D=Development R=Research]

Fermentation Products & Their Derivatives (2/2)

Product Name	Structural Formula	Typical Properties	End Uses	Remark
D-Asp D-Aspartic acid CAS No. 1783-96-6 EINECS: 2172346 TSCA: -		Appearance: White powder Assay: 99.0% Min. Optical Purity 99.0%e.e. Min.	Chiral intermediate for pharmaceuticals and agrochemicals Materials for peptides	C
D-AspDB-TsOH Dibenzoyl D-Aspartate p-Toluenesulfonate CAS No. 4079-64-5 EINECS: - TSCA: -		Appearance: White powder Assay: 99.0% Min. Optical Purity 99.0%e.e. Min.	Chiral intermediate for pharmaceuticals and agrochemicals	D

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