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(21) International Application Number: PCT/US98/07486 (22) International Filing Date: 14 April 1998 (14.04.98) (30) Priority Data: 08/839,576 15 April 1997 (15.04.97) US 08/843,340 15 April 1997 (15.04.97) US 08/956,745 23 October 1997 (23.10.97) US (71) Applicant: UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORPORATION [US/US]; 39 Old Ridgebury Road, Danbury, CT 06817-0001 (US). (72) Inventors: MAHER, John, Michael; 1113 Highland Road, Charleston, WV 25302 (US). BRYANT, David, Robert; 1201 Shady Way, South Charleston, WV 25309 (US). HOLLADAY, Johnathan, Eugene; 1090 Green Meadow Road, Charleston, WV 25314 (US). EISENSCHMID, Thomas, Carl; 5407 Tiffany Drive, Cross Lanes, WV 25313 (US). BRIGGS, John, Robert; 1522 Bedford Road, Charleston, WV 25314 (US). OLSON, Kurt, Damar; 5442 Longview Drive, Cross Lanes, WV 25313 (US). (74) Agent: WIGGINS, Karen, Johnson; Union Carbide Chemicals & Plastics Technology Corporation, 39 Old Ridgebury Road, Danbury, CT 06817-0001 (US).		(81) Designated States: BR, CA, CN, JP, KP, KR, MX, PL, RU, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>
(54) Title: EPSILON CAPROLACTAM COMPOSITIONS AND BYPRODUCTS		
(57) Abstract This invention relates to a composition comprising (a) epsilon caprolactam and (b) one or more of 5-[4,5-di(3-carboxypropyl)-2-pyridyl]pentanoic acid or salt or amide, 4-[4,5-di(2-carboxypropyl)-2-pyridyl]-2-methylbutanoic acid or salt or amide, 2-[2-(2-carboxybutyl)-5-(1-carboxypropyl)-4-pyridyl]butanoic acid or salt or amide, 5-[3,5-di(3-carboxypropyl)-2-pyridyl]pentanoic acid or salt or amide, 4-[3,5-di(2-carboxypropyl)-2-pyridyl]-2-methylbutanoic acid or salt or amide, 2-[2-(2-carboxybutyl)-5-(1-carboxypropyl)-3-pyridyl]butanoic acid or salt or amide, 5-amino-4-methylpentanamide, 4-amino-3-ethylbutanamide, 5-[4,5-di(4-hydroxybutyl)-2-pyridyl]pentanol, 4-[4,5-di(2-methoxypropyl)-2-pyridyl]-2-methylbutanol, 2-[2-(2-methoxybutyl)-5-(1-methoxypropyl)-4-pyridyl]butanol, 5-[3,5-di(4-hydroxybutyl)-2-pyridyl]pentanol, 4-[3,5-di(2-methoxypropyl)-2-pyridyl]-2-methylbutanol, 2[2-(2-methoxybutyl)-5-(1-methoxypropyl)-3-pyridyl]butanol, 5-amino-4-methyl-1-pentanol, 5-imino-2-methyl-1-pentanamine, 5-amino-2-methyl-1-pentanol, 5-imino-4-methyl-1-pentanamine and 2-butyl-4,5-dipropylpyridine, wherein the weight ratio of component a) to component b) is at least about 99 to 1. The epsilon caprolactam compositions are useful in the preparation of nylon 6.		