

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
21 October 2010 (21.10.2010)

PCT

(10) International Publication Number
WO 2010/120398 A2

(51) International Patent Classification:
C07D 209/48 (2006.01) **C07D 209/44** (2006.01)

(21) International Application Number:
PCT/US2010/022727

(22) International Filing Date:
1 February 2010 (01.02.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/165,714 1 April 2009 (01.04.2009) US
09159820.1 8 May 2009 (08.05.2009) EP

(71) Applicant (for all designated States except US):
EXXONMOBIL CHEMICAL PATENTS INC.
[US/US]; A Corporation Of The State Of Delaware, 5200
Bayway Drive, Baytown, TX 77520-2101 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **JAENSCH, Helge**
[DE/US]; 19200 Space Center Blvd, No. 1622, Houston,
TX 77058 (US).

(74) Agents: **BOONE, Anthony, G.** et al.; Exxonmobil
Chemical Company, Law Technology, P.O. Box 2149,
Baytown, TX 77522-2149 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD,
SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted
a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of
the earlier application (Rule 4.17(iii))

Published:

- without international search report and to be republished
upon receipt of that report (Rule 48.2(g))

(54) Title: PROCESS FOR PREPARING N-SUBSTITUTED CYCLIC IMIDES

(57) Abstract: In a process for making an N-substituted phthalimide compound, an amine is contacted with a carboxylic acid anhydride and allowed to react in an aqueous solution at a pH of about 2 to about 6. Optionally, the reactants are combined with an acid to lower the pH of the reaction solution wherein the lowering of the pH optimizes the yield of the desired N-substituted phthalimide product. The N-substituted phthalimide may be, for example, N-hydroxyphthalimide, and the reactants may be phthalic anhydride and hydroxylamine or a salt thereof. The N-substituted phthalimide compound is useful for, among other things, the oxidation of various hydrocarbons.



WO 2010/120398 A2