

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 September 2007 (07.09.2007)

PCT

(10) International Publication Number
WO 2007/099557 A3

(51) International Patent Classification:

C07H 1/00 (2006.01) C07H 5/02 (2006.01)
C07H 13/02 (2006.01) C07H 15/00 (2006.01)

(21) International Application Number:

PCT/IN2007/000076

(22) International Filing Date:

28 February 2007 (28.02.2007)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

291/MUM/2006 28 February 2006 (28.02.2006) IN

(71) Applicant (for all designated States except US):
PHARMED MEDICARE PVT. LTD. [IN/IN]; 141,
Walchand Hirachand Marg, Mumbai 400 001, Maharashtra
(IN).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **RATNAM, Rakesh**
[IN/IN]; Pharmed Medicare Pvt. Ltd., Pharmed Gardens,
Whitefield Road, Bangalore 560 048, Karnataka (IN).
AURORA, Sundeep [IN/IN]; Pharmed Medicare Pvt.
Ltd., Pharmed Gardens, Whitefield Road, Bangalore
560 048, Karnataka (IN). **MOFIZUDDIN, Mohammed**
[IN/IN]; Pharmed Medicare Pvt. Ltd., Pharmed Gardens,
Whitefield Road, Bangalore 560 048, Karnataka (IN).

(74) Agents: **SAVANGIKAR, Vasant, Anantrao** et al.; Kr-
ishna & Saurastri, 74/F, Venus, Worli Sea Face, Mumbai
400 018, Maharashtra (IN).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, 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, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report
— with amended claims and statement

(88) Date of publication of the international search report:
6 December 2007

Date of publication of the amended claims and statement:
7 February 2008

(54) Title: PROCESS FOR THE PRODUCTION OF A CHLORINATING REAGENT AND ITS USE IN THE PREPARATION OF CHLORINATED SUGARS

(57) Abstract: A process for controlling the emission of gaseous by-products in the preparation of a Vilsmeier reagent, and its use as a chlorinating reagent in the production of high intensity sweeteners, such as trichlorogalactosucrose, from partially protected sugars. The process comprises reacting a sulfur containing inorganic acid, such as thionyl chloride or sulfuryl chloride with a tertiary amide in the presence of an inert solid powder or reverse addition of the reagents; the produced Vilsmeier reagent can be used in-situ or in an isolated form.



WO 2007/099557 A3