

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau

(43) International Publication Date  
16 June 2022 (16.06.2022)



(10) International Publication Number  
**WO 2022/122273 A1**

(51) International Patent Classification:

C07C 253/34 (2006.01) C07C 255/12 (2006.01)

(21) International Application Number:

PCT/EP2021/080904

(22) International Filing Date:

08 November 2021 (08.11.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

20212450.9 08 December 2020 (08.12.2020) EP

(71) Applicant: **EVONIK OPERATIONS GMBH** [DE/DE];  
Rellinghauser Strasse 1-11, 45128 Essen (DE).

(72) Inventors: **BESTGEN, Sebastian**; Im Sylvaner 6a, 65760  
Eschborn (DE). **GRÄFF, Günther**; Auf der Au 2, 64625  
Bensheim (DE). **CASPARI, Mailk**; Im Ritterbruch 35,  
64665 Alsbach-Haehnlein (DE). **SCHÜTZ, Thorben**; Alte  
Bergstr. 20, 64665 Alsbach-Hähnlein (DE). **TRAUTH-  
WEIN, Harald**; Fischergasse 19, 63739 Aschaffenburg  
(DE).

(74) Agent: **EVONIK PATENT ASSOCIATION**; c/o Evonik  
Industries AG, IP Management, Bau 1042A, PB15, Paul-  
Baumann-Strasse 1, 45772 Marl (DE).

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

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,  
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,  
TM), European (AL, 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, RS, SE, SI, SK, SM,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
KM, ML, MR, NE, SN, TD, TG).

(54) Title: A METHOD FOR THE PURIFICATION OF ETHYLENE CYANOHYDRIN

(57) Abstract: The invention pertains to a process for purifying ethylene cyanohydrin comprising incubating a industrial grade ethylene cyanohydrin product with at least one titanium(IV)alkoxide; and to ethylene cyanohydrin products with purities > 99 % and comprising less than 0.05 % of ethylene glycol (EG), and/or comprising a water content of less than 1000 ppm.

WO 2022/122273 A1