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Preparation of tertiary butyl chloride pdf

Preparation of t-Butyl chloride treatment of butyl alcohol tart, (CH₃)₃COH, with concentrated HCl quickly converts it into butyl chloride tart, (CH₃)₃CCl. Let's look at how this reaction is going and how to do it in the lab. Copyright (c) 1999. it is. [SN1] (CH₃)₃C-OH + H⁺ → (CH₃)₃C-OH₂⁺ → (CH₃)₃C⁺ + Cl⁻ → (CH₃)₃C-Cl tertiary alcohol carbocation alkyl halide This illustrates preparations the fast reaction of a tertiary alcohol with hydrogen chloride to give the corresponding a chloride a SN1 by a SN1 mechanism. That goes through carbocation. In a funnel separator 100 mL alcohol enhydro thibutyl (12.4 g, density 0.78 g/cm³), and concentrated hydrochloric acid (21 ml) and shake the mixture over 20 minutes very frequently. After each shaking, eliminate any internal pressure by opening the stacock funnel separator upside down. Let the mixture stand for a few minutes after the shaking period until the layers are sharply separated; separate the two layers and set aside the blue acid layer in a beak. Pour the layer containing the halide product into a clean, dry tapered flask and dry with a mixture of magnesium sulfate and sodium carbonate in the filled flask.* Filter the liquid into a pre-weight dry test tube through a small hopper that supports a flute filter paper. Record the T-Vall chloride weight, calculate the performance and send the whole sample for grading. Inspect the infrared spectrum of t-butanol and t-butylchloride. On your worksheet, register the band position and name the performance group that disappeared during the reaction. * Dry for at least 10 minutes until another chloride is cloudy. Note: Valli sour chloride is very volatile. Reference: Solomons and Fryhle, 8th Edition, pg 501 Return to Chemistry, UWI-Mona, Home Page Copyright © 1997-2015 by The Department of Chemistry UWI, Jamaica, all rights reserved. Created and maintained by Professor Robert J. Lancashire, Department of Chemistry, University of the West Indies, Mona Campus, Kingston 7, Jamaica. Created March 1997. The links checked and/or last modified 19 March 2015. URL a kind of preparation method of tertiary butyl chloride technical field of invention is now related to the technical field of chemocenetz, especially related to a type of tertiary preparation method butyl chloride. Chloroparaphin field technology is an important intermediary of the organic chemical industry, it has a very important impact on any profession and transactions such as medicine, agricultural chemicals and coatings. Currently, the power of domestic sour chloride is lower, and the producer is very but small. The technique of producing previous art is more sophisticated, the facility investment is high; the reaction performance is less. The object summary of the invention of the present invention is precisely a flaw for the aforementioned existence and provides some kind The tart method of butteryll chloride invented is the adoption of trimethyl carbinol, under the conditions of metal chloride catalyst, a chlorinated reaction occurs, the synthesis of butyl chloride tertiary. The method of preparing the present invention adds sodium chloride or calcium chloride catalyzers, and the simple production technique is quantitative facility investment, reaction performance is more than 95%, and the purity of the gas phase is 99.5% with a first-class advantage. The technical design of the preparation method of a type of butyl chloride tertiary is present from the invention, the trimethyl carbinol as raw material, performing the chlorine reaction in acid conditions with under the catalyzed sodium chloride or calcium chloride, the synthesis of butyl chloride tertiary. The reaction equation is as follows: the preparation method described is a type of butyl chloride tertiary, including the following steps: (1) in trimethyl carbinol, add solvent and perform chlorine reaction, in the reaction process, add metal chloride, increased chlorine ion concentration in the reaction system, thereby promoting that positive reaction is done, rapid reaction speed, improved reaction performance; Dry. In stage (1) concentrated hydrochloric acid solvent, refrigerated acetic acid, vitriol oil or other potent acid known by professionals. In step (1), the solvent weight is 2-5 times the weight of trimethyl carbinol. In stage (1), the chlorination reaction temperature is 25-60 DEG C. Sodium chloride or calcium chloride and the weight ratio of trimethyl carbinol is 1:2-10 in stage (1). Metal chloride in stage (1) at least one is preferred in sodium chloride, Repone K, calcium chloride, magnesium chloride, iron (ic) chloride, sodium chloride. In stage (2), the drying temperature is 10-40 DEG C. In stage 2, lye alkali is a solution of sodium hydroxide or sodium carbonate solution. The preparation method described is a type of terrshire butyl chloride, including the following steps: (1) Trimethyl carbinol is dispersed in a solvent type in concentrated hydrochloric acid, refrigerated acetic acid, vitriol oil, then adds sodium chloride, temperature control 25-60 DEG C reaction 5-8 hours; (2) The first layering is done, the water point of the stratum function is obtained by standing for the stage (1) the reaction solution; Syciv filtering obtains a sour solution of Valli chloride and facilitates it. The useful effect of the method of preparing a type of tertiary butyl chloride is the present invention: the inventive method is that the raw materials perform the chlorination reaction with trimethyl. Sodium chloride or calcium chloride is added in the reaction process, increasing the concentration of chlorine ions in the reaction system, thereby promoting that positive reaction is done, improving performance, unrealized adrab of tertirbutyl alcohol simultaneously, obtaining very pure tertirbutyl chloride. The use of concentrated hydrochloric acid to prepare chloroparaphine for the chlorizing agent, not only obtaining the average value of butyl chloride tartry, solves the question of using concentrated hydrochloric acid simultaneously. The method of preparing the present invention adds sodium chloride or calcium chloride catalyzers, and the simple production technique is quantitative facility investment, reaction performance is more than 95%, and the purity of the gas phase is 99.5% with a first-class advantage. Visualization: To better understand the present invention, describe the technical design of the present invention in detail with certain examples below, but the invention is not limited to it. Visualization of 1 trimethyl carbinol 200 g in 1000ml reaction flask added, Also, then add concentrated hydrochloric acid 400 g, sodium chlorine 200g, bath water temperature control 50 DEG C, co-reaction 5 hours, stop the leaves and do the layering for the first time, split the layering of the yield water, in the organic layer of sodium hydroxide 10g that the layering is obtained for the first time and after, leave stop doing the second layering , Dividing water stratum, the organic layer that layers the second time obtains 40g added sodium sulfate and performs drying, after drying 1h, after facilitating the scythio filter, obtaining butyl chloride 240g. Yield 96%, GC99.7%. Visualize 2 trimethyl carbinol 200 g in 1000ml reaction flask added, str, then add 400g vitriol oil, sodium chlorine 200g, bath water grade control Heat 60 DEG C, resonate 7 h, stop leaves and do the first layering, water point function stratum, in the organic layer of sodium carbonate 10g that the first layer is obtained and then, leaving Stopping and performing the second time layering , water point stratum yield, adds 50g sodium sulfate by the organic layer that layers the second time and achieves drying. Tertiary butyl chloride is obtained 237g after filtration dissatience after dry 1h. Performance 95%, GC99.8%. Incarnation of 3 trimethyl carbinol 200 g in 1000ml reaction flask added, Str, then add 350 g glacial acetic acid, 200g calcium chloride, bath water temperature control 55 DEG C, stirring reaction 8 hours, stop the leaves and do the first layering, water point stratum function, in the organic layer of sodium hydroxide 10g that is layered first obtained and after, leaving stop and performing the second time layering , water point function stratum, adds 40g calcium chloride by organic layer that layers the second time and achieves drying. Tertiary butyl chloride is 240.3g After 1h drying after filtering the cytic. Yield 96.2%, GC99.8%. GC99.8%.