

These compounds are quite stable; at high temperatures they are decomposed with formation of acetamide.

They are evidently salts of the trimethyl glyoxaline, discovered by v. Pechmann.* This was proved also by preparing the hydrochloride of the base, by decomposing the salts with hydrochloric acid and evaporating the filtrate. The residue was recrystallized from alcohol-ether.

0.2275 grms. gave 0.2219 AgCl

| | Calculated for $C_{10}H_{10}N_2HCl$ | Found. |
|----|--|--------|
| Cl | 24.38 | 24.13 |

The free base was liberated with sodium carbonate and extracted with ether. Recrystallized from a mixture of ether and ligroin, it forms small white needles which have a bitter taste and melt at 130 or 131°.

ON THE COMPOUND $C_{21}Cl_{26}$.

By EDGAR F. SMITH and HARRY F. KELLER.

[Read at the Stated Meeting of the Chemical Section, March 19, 1889.]

In 1876,† one of us (S.) described a compound, containing only carbon and chlorine. It was obtained by the exhaustive chlorination of toluene exposed to sunlight, first at the boiling temperature and then in the cold. Several analyses of the purified product showed the presence of 21.40 per cent. carbon and 78.6 per cent. chlorine. The only solvent employed at the time was chloroform, and from such a solution crystals, measuring one-half inch in length and one-fourth inch in breadth, were obtained. The forms were apparently orthorhombic. The melting point, taken after each of a series of re-crystallizations, remained constant at 152°–153° C. To this rather interesting derivative the improbable formula $C_{21}Cl_{26}$ was ascribed. Nascent

* *Ber.* **21**, 1411.

† *Dissertation*. Goettingen, 1876; *Jahresbericht*, 1877, p. 421; *Am. Phil. Soc.*, **17**, p. 29.

hydrogen acted with difficulty upon it. After an exposure of two months to the influence of zinc and sulphuric acid, it was scarcely changed, inasmuch as an analysis of the product gave 21.69 per cent. carbon, 77.76 per cent chlorine and one per cent. hydrogen.

Nothing further was done with the compound until about five years later, when a portion of it was treated in a sealed tube with an excess of aniline (*Am. Chem. Jour.*, vol. 1, p. 150). By this treatment a base was formed, melting at 230° C. Its hydrochloric acid salt was analyzed.

Crystals of the original compound, in its purest condition, were preserved for twelve years without undergoing any visible alteration, and it was but natural that we should be surprised, on fusing some of this same material, to find it melting at 101° C. This melting point remained constant, even after re-crystallization from pure chloroform. On heating a portion of the substance in a test tube, we observed that hydrochloric acid gas was evolved. A combustion gave 22.8 per cent. carbon and 2.2 per cent. hydrogen. A vapor density determination was carried out, but as we had evidence of decomposition, we place no reliance on the result. Every possible precaution was observed in the combustion, in order that we might arrive at the true hydrogen percentage, and that given above would indicate but slight change from the original constitution. Work is now being prosecuted, with a view of obtaining the carbon chloride, when it is proposed to pay especial attention to the solution of its molecular formula and to the study of some of its derivatives. We, therefore, request those who may have entertained the idea of investigating this compound to postpone their work, and leave the field to us at least for a few months.

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PHILADELPHIA, March 15, 1889.