

Higher yield & quality of NICLOSAMIDE in commercial manufacturing of Veterinary medicine

Suryadevara Ramakrishna
Sarvani labs Private Limited

DOI: 10.29322/IJSRP.13.09.2023.p14102
<https://dx.doi.org/10.29322/IJSRP.13.09.2023.p14102>

Paper Received Date: 15th July 2023
Paper Acceptance Date: 24th August 2023
Paper Publication Date: 6th September 2023

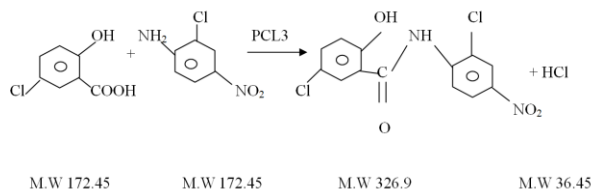
Abstract- Niclosamide is an anthelmthic medication used to treat tapeworm infestations, including diphyllbothriasis, hymenolepiasis, and taeniasis in animals. Purity and yield are the major deciding factors in commercial production of Niclosamide. Process parameters and compositions of raw materials & solvents play a major role in attaining the desired quality of the drug.

Index Terms- about Niclosamide, Purity, Process, route of synthesis, Synthesis and yield.

I. INTRODUCTION

Niclosamide synthesis method, comprise of several parameters that include raw material compositions and reagents and temperature. 5-chloro-salicylic acid is mixed with 2-chloro-4-nitraniline in toluene and chlorinating agent of PCL3 in a temperature range of 50 to 55 °c stir and heat up to 100- 105 °c

B. Route of synthesis



II. GET PEER REVIEWED

Here comes the most crucial step for your research publication. Ensure the drafted journal is critically reviewed by your peers or any subject matter experts. Always try to get maximum review comments even if you are well confident about your paper.

III. IMPROVEMENT AS PER REVIEWER COMMENTS

, under melting, react 9-10 hours, to obtain Niclosamide tech. Preferably wash the tech with 5 volumes of methanol calculated with respect to dry basis of 5-chloro-salicylic acid. The invention provides that a kind of Purity & yield is high, the Niclosamide synthetic method of environmental protection. 5-chloro-salicylic acid that 50g is dry, the 2-chloro-4-nitraniline that 25g is dry and 1g PCL3, after being fully stirred and mixed, under strong stirring, slowly heat up and stir to a kind of raw material, continue to stir 9-10 hours, reaction heated up to 100-105 °C, and reaction mixture cooled to 40 °C, add 250mL Methanol, and heat up to reflux, fully stir 2 hours, heat and filter the material, drying 3h at 45-50 °C for filter cake, obtains Niclosamide 71.2 g, and yield is 91.1%.

IDENTIFY, RESEARCH AND COLLECT IDEA

IV. CONCLUSION

It has been observed that temperature at addition of PCL3 & the mixing of raw materials, quantities of 2-chloro-4-nitroaniline & PCL3 and maintenance time impact the yield and purity significantly.

APPENDIX

ACKNOWLEDGMENT

REFERENCES

- [1] O.P. Agarwal, "Organic chemistry", 1st vol. Delhi : Disha publications, 2021.
- [2] Paula Yurkanis Bruice, "Organic chemistry", 1st vol. Pearson Education (1 August 2020)
- [3] Kong Fanlei, Zhang wanggeng, Ding wusong, "Niclosamide synthetic method", Application number- CN201410086821, State IP office of the P.R.C

AUTHORS

Suryadevara Ramakrishna, M.sc, Sarvani labs Private limited and suryadevara2004@yahoo.com.

