unsaturated propellants, the number 1 is used as the fourth digit from the right to indicate an unsaturated double bond.

Thus for dichlorodifluoromethane (propellant 12):

(a) First digit = 0 signifies number of C atoms = 1

(b) Second digit = 1 signifies number of H atoms = 0

(c) Third digit = 2 signifies number of F atoms = 2

(d) Number of Cl atoms = 4 – (2 – 0) = 2

Under the terms of the Montreal Protocol, aimed at reducing damage to the ozone layer, the use of chlorofluorocarbons, including dichlorodifluoromethane, dichlorotetrafluoroethane, and trichloromonofluoromethane, has been prohibited from January 1996.[2–6] However, this prohibition does not apply to essential uses such as existing pharmaceutical formulations for which no alternative chlorofluorocarbon-free product is available. The EPA and FDA approved essential-use status for dichlorodifluoromethane for a sterile aerosol talc used in the treatment of malignant pleural effusion in patients with lung cancer.

19 Specific References

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21 Authors

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22 Date of Revision

4 May 2017.

Chloroxylenol

1 Nonproprietary Names

BP: Chloroxylenol

USP–NF: Chloroxylenol

2 Synonyms

4-Chloro-3,5-dimethylphenol; 2-chloro-5-hydroxy-1,3-dimethylbenzene; 4-chloro-1-hydroxy-3,5-dimethylbenzene; 2-chloro-5-hydroxy-*m*-xylene; 2-chloro-*m*-xylenol; 3,5-dimethyl-4-chlorophenol; *Nipacide PX*; parachlorometaxylenol; *p*-chloro-*m*-xylenol; PCMX.

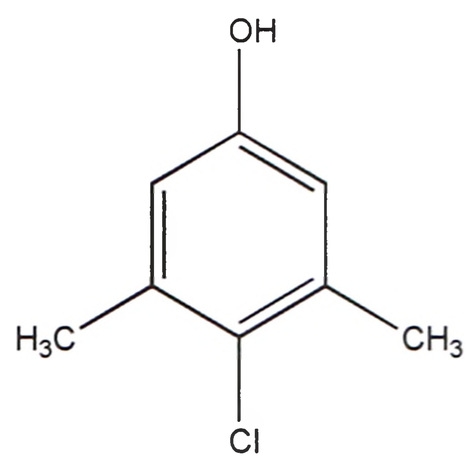
3 Chemical Name and CAS Registry Number

4-Chloro-3,5-xylenol [88-04-0]

4 Empirical Formula and Molecular Weight

C_8H_9ClO 156.61

5 Structural Formula



6 Functional Category

Antimicrobial preservative.

7 Applications in Pharmaceutical Formulation or Technology

As a pharmaceutical excipient, chloroxylenol is commonly used in low concentrations, typically at concentrations of 0.1–0.8%, as an