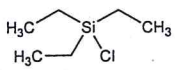
l, acetone, chloroform, carbon tetrachloride,

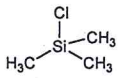
ɜn.

thylsilane. [994-30-9] Triethylchlorosilane; ESCl; Et_3SiCl. $C_6H_{15}ClSi$; mol wt 150.72. Cl 23.52%, Si 18.63%. Silylating reagent is to introduce the triethylsilyl (TES) protect- n triethylethoxysilane: A. Ladenburg, *Ann.* hexaethyldisiloxane: P. A. Di Giorgio *et al.*, 380 (1946); from β-chloroethyltriethylsilane: , 2869 (1948). Use in protection of hydroxyl *et al.*, *Helv. Chim. Acta* **64**, 2002 (1981); W. odriguez, *J. Org. Chem.* **52**, 598 (1987). Ad- ications: S. Danishefsky *et al.*, *J. Am. Chem.* Y. Fujii *et al.*, *J. Organomet. Chem.* **692**, 375 uros in *Encyclopedia of Reagents for Organic* uette, Ed. (Wiley, New York, 1995) pp 1225-



7°. d^{20} 0.8967. n_D^{20} 1.4314. *Flammable. Cor-* tly with water. Flash point, closed cup: 86°F protic solvents.
nthetic organic chemistry.

trimethylsilane. [75-77-4] Trimethylchlo- ane chloride; trimethylsilicon chloride; trimeth- I_9ClSi; mol wt 108.64. C 33.17%, H 8.35%, Cl Silylating reagent and Lewis acid catalyst in emistry. Prepn from trimethylsilane and chlo- 3. V. De G. Walden, *J. Am. Chem. Soc.* **66**, 842 chloride: H. S. Booth, J. F. Suttle, *ibid.* **68**, examethyldisiloxane and ammonium chloride: *d.* **70**, 433 (1948). Crystal structure: J. Busch- *rystallogr.* **C56**, 121 (2000). Thermodynamic er, C. T. Mortimer, *J. Chem. Soc. A* **1966**, 514. ns: G. A. Olah *et al.*, *J. Org. Chem.* **44**, 4272 *t al.*, *Tetrahedron Lett.* **31**, 6677 (1990); J.-M. *h. Commun.* **27**, 739 (1997); J. Eras *et al.*, *J. Org.* 002); in catalysis: P. Verma, S. Ray, *Indian J.* 990); L.-W. Xu *et al.*, *Synth. Commun.* **37**, 3095 tion and gas chromatography: J. Eras *et al.*, *J.* **7**, 157 (2004).



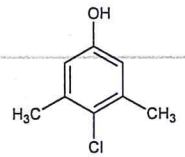
. Strong camphor-like odor. Fumes slightly in air. *osive. Reacts violently with water.* bp 57.3°. fp ittle); also reported as fp −40° (Taylor, Walden); hmann). d_4^{25} 0.846; d^{20} 0.8581. n_D^{20} 1.3884. Flash −0.4°F (−18°C). Heat of formation: −91.9±0.8

o introduce the trimethylsilyl group in organic syn- In compd derivitization to increase volatility for hromatography. In prepn of anhydrous solns of

roxine. [773-76-2] 5,7-Dichloro-8-quinolinol; ydroxyquinoline; Capitrol. $C_9H_5Cl_2NO$; mol wt %, H 2.35%, Cl 33.12%, N 6.54%, O 7.47%. Prepd -quinolinol: Hebebrand, *Ber.* **21**, 2977 (1888); F. *nic Analytical Reagents* vol. I (Van Nostrand, 1947)

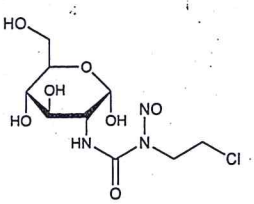
Crystals from alc, mp 179-180°. Soluble in benzene, acetone; slightly sol in cold alcohol, acetic acid; readily sol in sodium and potassium hydroxides and in acids, forming yellow solns.
USE: Analytical reagent.
THERAP CAT: Antiseborrheic.

2182. Chloroxylenol. [88-04-0] 4-Chloro-3,5-dimethylphenol; *p*-chloro-*m*-xylenol; 4-chloro-3,5-xylenol; parachlorometaxylenol; 2-chloro-*m*-xylenol; 2-chloro-5-hydroxy-*m*-xylene; 2-chloro-5-hydroxy-1,3-dimethylbenzene; Benzytol; Dettol. C_8H_9ClO; mol wt 156.61. C 61.35%, H 5.79%, Cl 22.64%, O 10.22%. Prepd by treating 3,5-dimethylphenol with Cl_2 or SO_2Cl_2: Lesser, Gad, *Ber.* **56**, 974, 976 (1923); von Auwers *et al.*, *Chem. Zentralbl.* **1924**, II, 2267; *C.A.* **19**, 2339 (1925); Gladden, Cocker, US **2350677** (1944).



Crystals from benzene, mp 115.5°. Phenolic odor. Volatile with steam. bp 246°. One gram dissolves in 3 liters of water at 20°. More stable in hot water. Soluble in 1 part of 95% alcohol, ether, benzene, terpenes, fixed oils, in solns of alkali hydroxides.
USE: Antiseptic and germicide; for mildew prevention. Claimed to be about 60 times as potent as phenol.
THERAP CAT: Antibacterial; antiseptic (topical and urinary).
THERAP CAT (VET): Antiseptic (topical).

2183. Chlorozotocin. [54749-90-5] 2-[[[(2-Chloroethyl)nitrosoamino]carbonyl]amino]-2-deoxy-D-glucose; 2-[3-(2-chloroethyl)-3-nitrosoureido]-2-deoxy-D-glucopyranose; 1-(2-chloroethyl)-1-nitroso-3-(D-glucos-2-yl)urea; DCNU; NSC-178248. $C_9H_{16}ClN_3O_7$; mol wt 313.69. C 34.46%, H 5.14%, Cl 11.30%, N 13.40%, O 35.70%. Chloroethylnitrosourea derivative with antitumor activity. Similar to carmustine, lomustine, nimustine, ranimustine, *q.q.v.*; 2-chloroethyl analog of streptozotocin, *q.v.* Synthesis: H. D. Burns *et al.*, *Org. Prep. Proced. Int.* **6**, 259 (1974); T. P. Johnston *et al.*, *J. Med. Chem.* **18**, 104 (1975). Pharmacology: T. Anderson *et al.*, *Cancer Res.* **35**, 761 (1975); P. S. Schein *et al.*, *Cancer Treat. Rep.* **60**, 801 (1976). Decomposition in aqueous media: J. A. Montgomery *et al.*, *J. Med. Chem.* **18**, 568 (1975).



Ivory colored crystals, mp 147-148° (dec with the evolution of gas), (Burns, Heindel). Also reported as mp 140-141° (dec), (Johnston). Sol in water.
Caution: This substance is reasonably anticipated to be a human carcinogen: *Report on Carcinogens, Twelfth Edition* (PB2011-111646, 2011) p 328.
THERAP CAT: Antineoplastic.

2184. Chlorphenesin. [104-29-0] 3-(4-Chlorophenoxy)-1,2-propanediol; *p*-chlorophenyl α-glyceryl ether; Adermykon; Mycil. $C_9H_{11}ClO_3$; mol wt 202.63. C 53.35%, H 5.47%, Cl 17.49%, O 23.69%. Prepd by condensing equimol amts of *p*-chlorophenol and glycidol in the presence of a tertiary amine or a quaternary ammonium salt as catalyst: Bradley, Forrest, GB **628497** (1949 to British Drug Houses).

Kraft Chemical

Official Monographs

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To: Rick F[redacted]	[redacted]x: 708.345.4005
Re: [redacted]	
Pages: 1	Cc: Bob

Rick:

Here is a sound formula you may pass on to [redacted]. This will yield a clear solution that can be mist-sprayed onto hard services to effectively sanitize them within 30 seconds contact time, drying to a clear, non-greasy film. It has a pH range of 6.0 – 7.0 (neutral.)

Ingredient	%w/w	Source
Water (city)	q.s.	n/a
Isopropanol 99%	25.00	Kraft Chemical
Propylene glycol USP	7.00	Kraft Chemical
TEA Lauryl Sulfate 40%	7.00	Kraft Chemical
Phenoxyethanol	1.00	Kraft Chemical
PCMX	3.00	Kraft Chemical

Mix all ingredients together at RT until a clear solution is apparent. This product should be considered combustible, not flammable, given the level of IPA.

Notes: the original British Pharmocopaeia standard used 5.00% w/w PCMX, along with IPA, potassium oleate or riconoleate (soap), terpineol and water. This would be fine if you are sanitizing military latrines, which the original formula was designed for, but since Mr. Karon stated that this product is likely to be used in areas of human contact, this will do better. There is a boost in bacteriostatic efficacy when you combine chloroxylenol with anionic lauric surfactants such as TEALS; likewise with phenoxyethanol.

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