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APPENDIX

Technical data and structure of nonionic surfactants and organic solutes studied.

Technical Data Describing CA-620 (Ash, 1993)

Igepal CA-620. [Rhone-Poulenc Surf.] Octoxynol-7; CAS 9002-93-1; nonionic; detergent, wetter, emulsifier for household and industrial detergents, textile, paper, metal and acid cleaning compounds, fine fabric detergents, agric. formulations; FDA, EPA compliance; pale yel. liq.; aromatic odor; sol. in xylene, butyl Cellosolve, perchloroethylene, ethanol, water; sp.gr. 1.05; visc. 240-260 cps; HLB 12.0; cloud pt. 21.1-23.9 °C (1%); flash pt. > 93.3 °C (PMCC); pour pt. -9.4 ± 1.1 °C; surf. tens. 30 dynes/cm (0.01%); 100% act.

Igepal CA-620

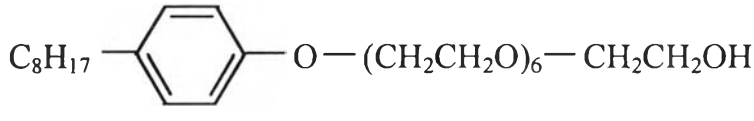


Figure A-1 Structure of Igepal CA-620.

Technical Data Describing CA-630 (Ash, 1993)

Igepal CA-630. [Rhone-Poulenc Surf.] Octoxynol-9; CAS 9002-93-1; nonionic; detergent, wetting agent, emulsifier for metal processing, emulsion cleaners, agric. formulations; as wetting agent with min. acids and corrosion inhibitors; FDA, EPA compliance; pale yel. liq.; aromatic odor; sol. in xylene, butyl Cellosolve, perchloroethylene, ethanol, water; sp.gr. 1.06; visc.

230-260 cps; HLB 13.0; cloud pt. 17.2-19.4 °C (1% aq.); flash pt. > 93.3 °C (PMCC); pour pt. 7.2 ± 1.1 °C; surf. tens. 31 dynes/cm (0.01%); 100% act.

Igepal CA-630

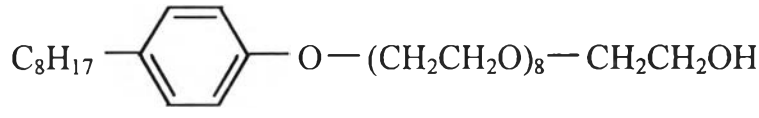
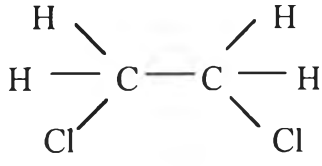


Figure A-2 Structure of Igepal CA-630.

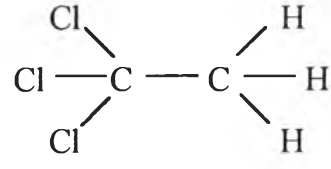
Table A-1 Technical data describing organic solutes (Perry and Green, 1984)

Properties	Component		
	Dichloroethane	Trichloroethane	Tetrachloroethane
Molecular Weight	98.97	133.42	167.86
Boiling Point (°C)	83.7	74.1	129-30
Specific Gravity	1.256 at 20 °C	1.325 at 26 °C	1.588 at 20 °C
Solubility in Water	0.9/100 parts at 0 °C	insoluble	insoluble

1, 2-Dichloroethane



1, 1, 1-Trichloroethane



1, 1, 1, 2-Tetrachloroethane

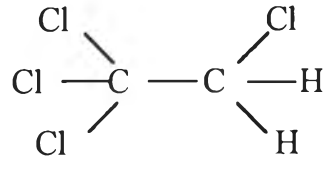


Figure A-3 Structure of organic solutes.

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