



Hydrogen Peroxide - Durox[®] and Durox[®] LR Grades

CAS NO 7722-84-1

Introduction

The Durox[®] and Durox[®] LR hydrogen peroxide products meet the rigorous high purity requirements listed in the Food Chemical Codex Edition III, pages 146-147. Available in 35% and 50% concentrations they are designed for food uses allowed in the Code of Federal register. Durox[®] LR should be used where exceedingly low residue is required, such as in spray aseptic packaging applications. Durox[®] contains higher stabilizer than Durox[®] LR for applications requiring prolonged contact with stainless steel surfaces and in general food uses. Neither Durox[®] nor Durox[®] LR is approved for human or animal consumption.

<u>Specifications</u>	<u>35%</u>	<u>50%</u>
H2O2 content, % by weight		
Product diluted at FMC sites	35.0-35.8	50.0-50.8
Stability, 24 hours @ 100° C	>96.0%	>96.0%

All concentrations of Durox[®] and Durox[®] LR shipped meet the following Chemical Codex Specifications

Residue (110 oC), %	0.006 max (60 PPM)
Heavy metals as lead, %	0.001 max (10 PPM)
Acidity as H2SO4	0.03 max (300 PPM)
Tin, %	0.001 max (10 PPM)
Phosphate, %	0.005 max (50 PPM)
Arsenic, %	0.0003 max (3 PPM)
Iron, %	0.00005 max (0.5 PPM)

The following typical values hold for either Durox[®] and Durox[®] LR

<u>Typical Properties</u>	<u>Approximate Value</u>	
	<u>35%</u>	<u>50%</u>
Apparent pH	2.5-4.0	1.5-3.0

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Residue, ppm	<10	<20
Loss in % assay, 1 yr, 25° C	<0.7	<1.0
Arsenic (ICP), ppm	<0.001	<0.002
Lead (ICP), ppm	<0.001	<0.002
Iron (ICP), ppm	<0.03	<0.05
Active oxygen, % by weight	16.5	23.5%
Specific gravity @ 20° C	1.13	1.20
H2O2 gram per liter @ 20° C	396	600
Lbs/U.S. gal (kg/M3) @ 20° C	9.4 (1126)	10.0 (1198)
Freezing point, ° C	-33 (-27)	-52 (-62)

Standard Containers

Polyethylene drums: 15 gallon (56.8 liter), 30 gallon (113.6 liter), 55 gallon (208.2 liter).

Bulk shipments are available in tank trucks and tank cars.

Hydrogen peroxide above 8% concentration is classified as an "Oxidizer" by the Department of Transportation and all containers must carry the yellow DOT label.