



PERACETIC ACID - $CH_3-C(=O)-O-OH$

extensive utilization in the food/agriculture, textile and paper industries.

It is used in the medical field as a disinfectant for medical devices of the group IIA ; thanks to its property of not fixing proteins, it is particularly interesting in managing the "Prion" risk.

Peracetic acid is less toxic and less dangerous than other disinfectants, but it is not riskless for certain concentrations :

- for solutions > 15%, it releases inflammable vapors with the risk of fire and explosion

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- the risks of explosion and fire impose special storage conditions for strong concentrations (explosion-proof cold storage unit, containers equipped with an air-hole plug and flame-proof).
- its toxicity to skin : a corrosive effect at concentrations > 10% for 3 minutes, or at concentrations between 3 to 5% (4 to 24 hours)
- irritating effect at concentrations from 0.04 to 0.4 % . No irritating skin effect at concentrations < 0.04% = non irritating.

Several manufacturers of machines intended for the food/agriculture market noted a rapid deterioration of base seals molded in FPM, FVMQ, VMQ and NBR. The main cause of this deterioration is the contact with washing products containing peracetic acid called APA at 5% of activity.

A few results confirm this trend (see table below).

After a tight collaboration with our raw material suppliers, we succeeded in designing a silicone mixture having a very good behavior to APA (very low loss of hardness).

This allowed us to propose solutions adapted to meet the expectations of manufacturers of machines for the food/agriculture market.

Once again, EFJM could take up a technological challenge, strengthening our prospects for the future.

AGING IN APA 5%

	Prop. before aging	2 h	6 h	24 h	48 h	72 h	
	Density	Hardness Sh A					
NBR	1.23	70	68	67	66	65.5	66
VMQ	1.32	71	68	66.5	60.5	50	48
FVMQ	1.51	70	63	62	61	60	60
FPM	1.84	75	64	63	61	62.5	62.5

