Comparison between Huwa-San with other disinfectant products

Criteria	**Quaternary Ammonium compounds**	**Phenols**	**Aldehydes (Formaldehyde / Glueraldehyde)**	**Chlorine**	**Huwa-San**
Activity	Gram+ve bacteria, fungi, yeasts, algae, lichen, enveloped viruses, not spores	gram+ve bacteria gram -ve bacteria fungi, yeasts enveloped viruses	Gram-ve bacteria gram -ve bacteria fungi, yeasts, spores, enveloped and naked viruses	Gram-ve bacteria gram -ve bacteria, not amoebae, some viruses and biofilm	gram +ve bacteria gram -ve bacteria fungi, yeasts, spores, enveloped and naked viruses, amoebae Protozoa, Biofilms
Optimal pH	5-9	2 -8	4-9	6.5-7.5	2 – 8
pH stability	1 – 12	1-14	3-12	change pH of treated water	2-8
Reaction to water hardness	Poor	very good	good	Poor	very good
Odour	Odourless	Strong	pungent	Strong	odourless
Carcinogenity	None	yes, proven	yes, proven (also causes severe allergic reactions; banned in many countries))	yes, proven	none
General stability after dilution	short-term, not re-usable	short-term, not re-usable	short-term, not re-usable	short-term	very good, re-usable
Stability to temperature	Moderate	Poor	Poor	Poor	very good
Automatic dosing	not possible	not possible	not possible	-	very good
Fogging	not possible	not possible	not possible	not possible	Ideal

The above table includes advantages and disadvantages for the different products.

The actual cost will depend on many factors.