

# **GM-Clean**

- Chlorine Dioxide Aqueous Solution**
- developed with our original technology**

# *GM Clean* : Key characteristics

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## ■ **SAFE: Neutral PH (pure water equivalent)**

Extensive testing shows *GM-Clean* is not harmful to the human body in any way. Not corrosive to resin, metal or rubber; no degradation or deterioration of these substances evident.

## ■ **Substantial evidence of POWER TO ERADICATE GERMS**

Tested for elimination of general bacteria, hospital infections, and bacterial mold. Tests also demonstrate its ability to render a wide range of viruses inactive.

## ■ **POWER TO ELIMINATE ODORS: using oxidation**

Removes smells through eliminating odors caused by proteins (by breaking them down through oxidation).

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## *GM-Clean* vs other products: Why it is safe

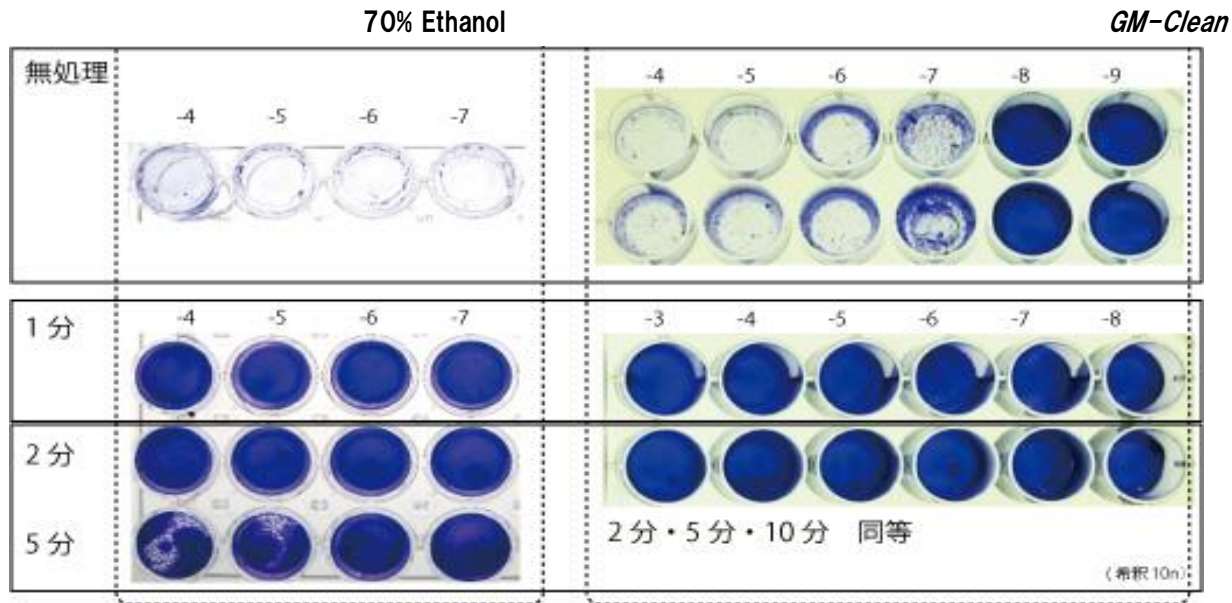
Safety		Why?
<i>GM-Clean</i>	○	Equivalent to water (Chlorine Dioxide completely stabilized)
70% Ethanol	×	Flammable, irritant, corrosive
Chlorine-based substances	×	Highly toxic and hazardous
Other stable Chlorine Dioxide substances	△	Chlorine Dioxide gas and Chlorine could escape if not completely stable

70% Ethanol is flammable and corrosive.

Chlorine-based substances are corrosive, could emit toxic gases, and could contain carcinogenic chemicals such as Trihalomethane.

# GM-Clean : Power to eradicate germs

*Example: Test to eliminate Influenza virus, Type A [Flu A PR8 (H1N1) ]*



70% Ethanol is fast-acting, but virus reappears after five minutes.

Virus does not reappear, even after five or ten minutes.

Virus dosage :  $10^7$  TCID<sub>50</sub>/ml Tested at Tokyo Medical and Dental university

With Ethanol the virus **reappeared** after a few minutes:  
 Limited sterilization capability

# GM-Clean : Key differences with other products

GM-Clean vs “Product C” – a similar stabilized Chlorine Dioxide product

**Safety**



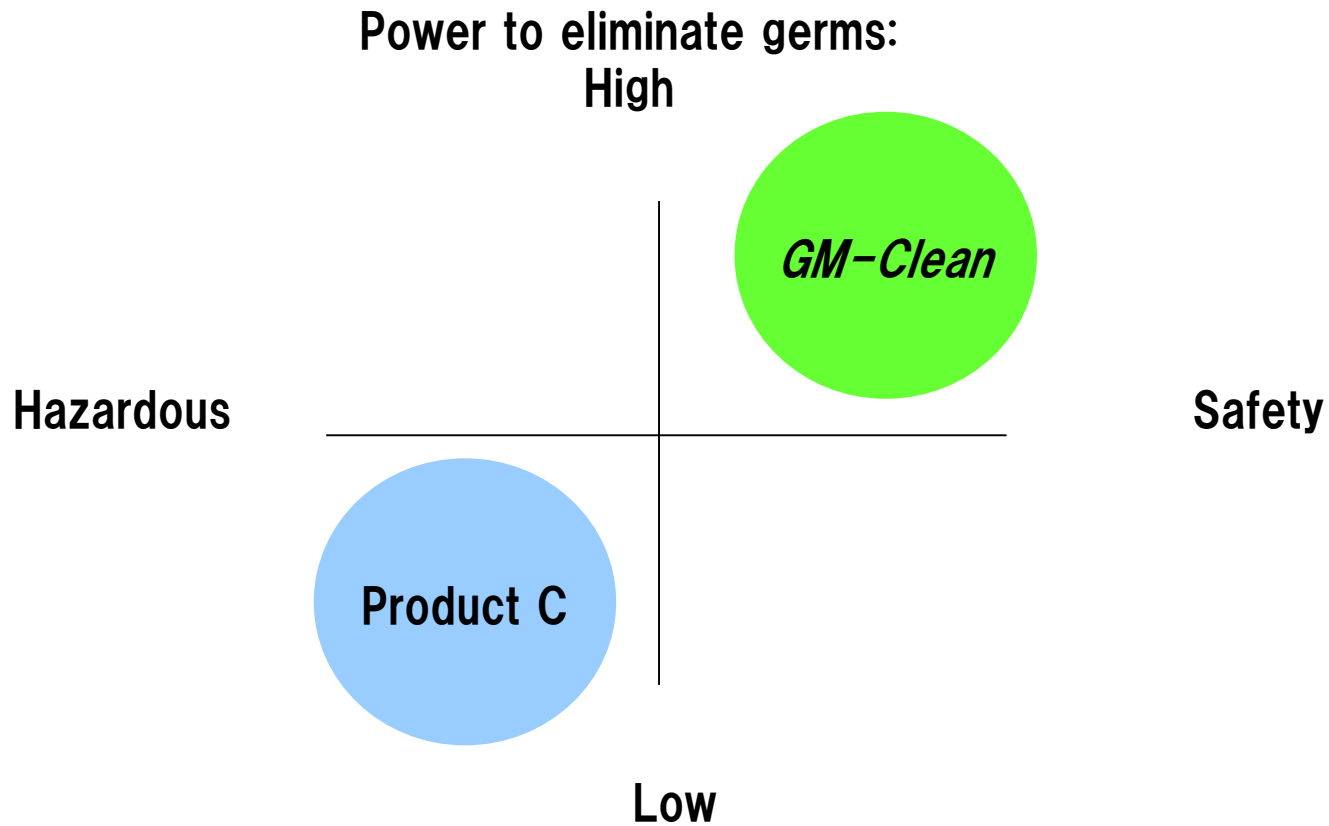
Highly toxic



Harmful



Hazardous

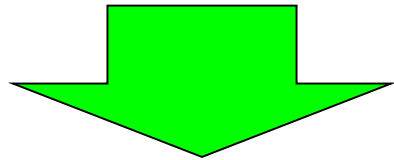


## *GM-Clean* : Key differences with other products

*GM-Clean* vs “Product C” – a similar stabilized Chlorine Dioxide product

Many Chlorine Dioxide formulations (Hypochlorous Acid, Zinc Soda, etc.) produce Chlorine and Chlorine Dioxide gas when acid is added.

“Product C” : Chlorine smell due to high concentration. Ingredients lose effect due to low stabilization.  
over 3–8 months?)

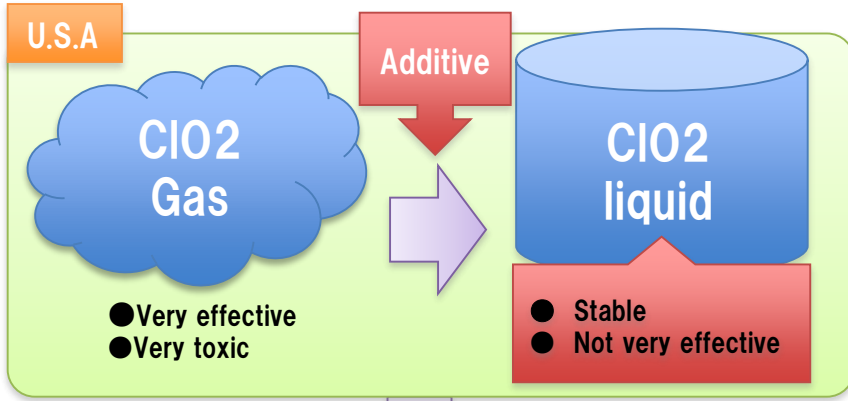


*GM-Clean* on the other hand...

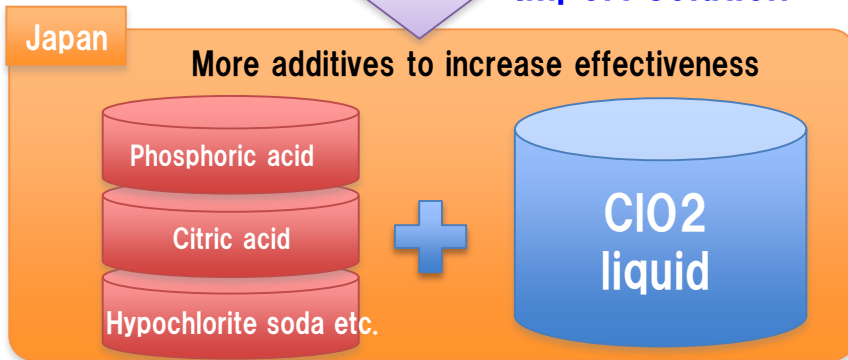
- ① Chlorine Dioxide mixed with purified water: *GM Clean* is clear, colorless and odorless
- ② Using our special technology, we completely stabilize the Chlorine Dioxide and maximize its oxidization capability.

**Hence we have developed a product with a low concentration of Chlorine Dioxide, which is strong and highly effective in eliminating germs and odors**

**Competitor product**

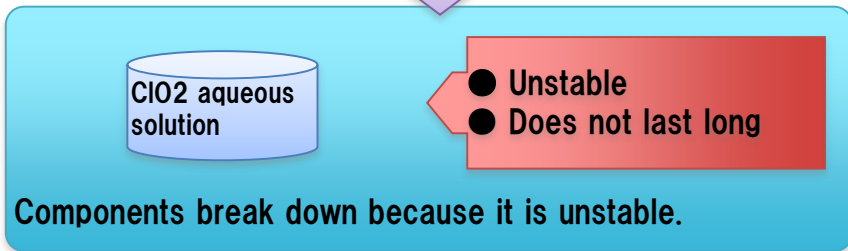


**Import solution**

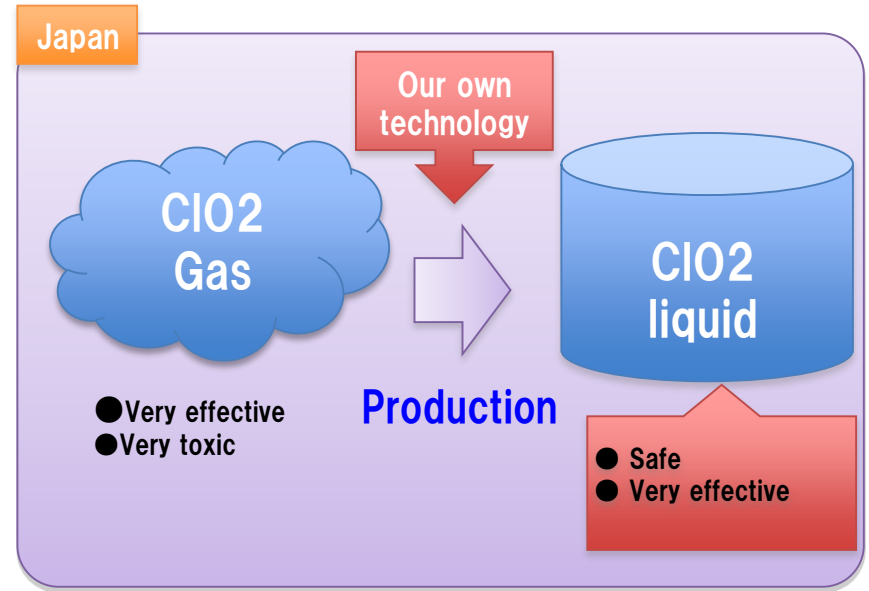


**Production**

More additives added



**GM-Clean**



## *GM-Clean* : Key differences with other products

### Other products

- Unstable (effective for 3–8 months)
- Chlorine smell; yellow color
- Weak sterilization capability
- Low safety
- Highly concentrated  
(High concentration makes it unsafe)
- Components: Chlorine Dioxide  
+ Hypochlorous Acid or Zinc Soda

### *GM-Clean*

- Stabilized (effective for one year)
- Clear and odorless
- Strong sterilization capability
- Highly safe
- Low concentration  
(Safe due to low concentration levels)
- Components : Chlorine Dioxide and water