



Mass Calculations, MSDS for Both EXTEND FRUITS & VEGETABLES and EXTEND BEVERAGES, and Comparison with Various Types of Disinfectants



1. Mass Calculations

The dilution rates of EXTEND FRUITS & VEGETABLES and EXTEND BEVERAGES are 1:349 and 1:14999, respectively. The average adult daily intakes of fruits & vegetable and beverages are 300 gm and 1.5 liters, respectively. We have previously determined that one kg of fruits and vegetables requires about 50 ml or 50 gm of solution EXTEND FRUITS & VEGETABLES (density = 1.0 gm/ml) if sprayed evenly.

Total mass (kg) of EXTEND FRUITS & VEGETABLES = $\left\{ [0.3 \text{ kg (daily intake)} / 1.0 \text{ kg}] \times 50 \text{ gm (spraying solution EXTEND FRUITS \& VEGETABLES)} \times 3 \text{ (3-year mission)} \times 365 \text{ days/year} \right\} / 1000 \text{ gm/kg} = 16.4 \text{ kg/astronaut or } 5.47 \text{ kg/astronaut/year}.$

Total mass (kg) of EXTEND BEVERAGES = $1500 \text{ ml} / 14999 \text{ (dilution factor of concentrated EXTEND BEVERAGES)} \times 1.195 \text{ gm/ml (density of concentrated EXTEND BEVERAGES)} \times 3 \text{ (3-year mission)} \times 365 \text{ days/year} \left. \right\} / 1000 \text{ gm/kg} = 0.131 \text{ kg/astronaut or } 0.0436 \text{ kg/astronaut/year}.$

Accordingly, for a 3-year mission, the total mass for both solutions is approximately 16.5 kg/astronaut or 5.5 kg/astronaut/year.



2. MSDS for EXTEND FRUITS & VEGETABLES and EXTEND BEVERAGES

Safety Data Sheet

Extend F&V 5% (w/w)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Extend Fruits & Vegetables 5% (w/w)

Product Use: Microbicidal formulation with Hydrogen Peroxide & Silver

Nitrate Manufacturer: Alpha Omega Bio (AOBIO).

Office #1, 37th Floor, Sanabil Tower, Sharq.
 State of Kuwait

For More Information: +965-67722001 (Sunday-Thursday 9:00-4:00)

www.aobiopharma.com

In Case of Emergency Call: +965-6772-2001 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Irritant

Target Organs: Eyes, Skin

Signal Words: Danger

Pictograms:



GHS Classification

| | |
|-----------------|------------|
| Skin irritation | Category 2 |
| Eye damage | Category 1 |

GHS Label Elements, including precautionary statements:

Hazard Statements:

| | |
|------|----------------------------|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |

Precautionary Statements:

| | |
|----------------|--|
| P264 | Wash hands thoroughly after handling. |
| P280 | Wear protective gloves/eye protection/face protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |

Potential Health Effects

| | |
|-------------------|--|
| Eyes | May cause serious irritation. |
| Inhalation | Irritating to the respiratory system. Causes irritation to the respiratory tract. |
| Skin | Irritating to skin. Contact causes redness, burns, itching and pain. Prolonged or repeated skin exposure may cause dermatitis. |
| Ingestion | Causes irritation and pain. |

NFPA Ratings

| | |
|------------------------|---------------|
| Health | 1 |
| Flammability | 0 |
| Reactivity | 0 |
| Specific hazard | Not Available |

HMIS Ratings

| | |
|-------------------|---------------|
| Health | 1 |
| Fire | 0 |
| Reactivity | 0 |
| Personal | Not Available |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight % | CAS # | Formula | Molecular Weight |
|-------------------|----------|-----------|-------------------------------|------------------|
| Hydrogen Peroxide | 5.0 | 7722-84-1 | H ₂ O ₂ | 34.01 g/mol |
| Water | 94.99537 | 7732-18-5 | H ₂ O | 18.00 g/mol |
| Silver Nitrate | 0.00463 | 7761-88-8 | AgNO ₃ | 169.87 g/mol |

4. FIRST-AID MEASURES

| | |
|-------------------|--|
| Eyes | Rinse with plenty of water for at least 15 minutes and seek medical attention. |
| Inhalation | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention. |
| Skin | Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention. |
| Ingestion | Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention. |

5. FIREFIGHTING MEASURES

| | |
|--|--|
| Suitable (and unsuitable) extinguishing media | Product is not flammable. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use flooding quantities of water to cool unopened containers. |
| Special protective equipment and precautions for firefighters | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. |
| Specific hazards arising from the chemical | Emits toxic fumes under fire conditions. (See also Stability and Reactivity section). |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--|---|
| Personal precautions, protective equipment and emergency procedures | See section 8 for recommendations on the use of personal protective equipment. |
| Environmental precautions | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements. |
| Methods and materials for containment and cleaning up | Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual |

| | |
|--|---|
| | contamination. Dispose of all waste and cleanup materials in accordance with regulations. |
|--|---|

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Isolate from combustible material. Store in the dark. Store in vented containers. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Component | Exposure Limits | Basis | Entity |
|-------------------|--------------------------------|-------|--------|
| Hydrogen Peroxide | 1 ppm 1.4 mg/m ³ | TLV | ACGIH |
| | 1 ppm 1.4 mg/m ³ | PEL | OSHA |
| | 1 ppm 1.4 mg/m ³ | REL | NIOSH |

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

| | |
|-------------------|---|
| Eyes | Wear chemical safety glasses with a face shield if splashing is likely to occur. |
| Inhalation | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| Skin | Wear neoprene or nitrile gloves, apron and other protective clothing appropriate to the risk of exposure. |
| Other | Not Available |

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|-------------------------|
| Appearance (physical state, color, etc.) | Clear, colorless liquid |
| Odor | No Odor |
| Odor threshold | Not Applicable |
| pH | Not Available |
| Melting point/freezing point | Not Available |
| Initial boiling point and boiling range | Not Available |
| Flash point | Not Flammable |
| Evaporation rate | Not Available |
| Flammability (solid, gas) | Not Flammable |

| | |
|---|-----------------------------|
| Upper/lower flammability or explosive limit | Not Explosive |
| Vapor pressure | Not Available |
| Vapor density | Not Available |
| Specific gravity | 1.01-1.02 |
| Solubility (ies) | Completely soluble in water |
| Partition coefficient: n-octanol/water | Not Available |
| Auto-ignition temperature | Not Applicable |
| Decomposition temperature | Not Available |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Chemical Stability | Stable |
| Possibility of Hazardous Reactions | Will not occur. |
| Conditions to Avoid | Store out of direct light |
| Incompatible Materials | Brass, copper, powdered metals, iron and iron salts, combustible materials. |
| Hazardous Decomposition Products | Not Available |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

| | |
|--------------------|---------------|
| Skin | Not Available |
| Eyes | Not Available |
| Respiratory | Not Available |
| Ingestion | Not Available |

Carcinogenicity

| | |
|--------------|--|
| IARC | 3-Group 3: Not classifiable as to its carcinogenicity to humans (hydrogen peroxide). |
| ACGIH | A3: Confirmed animal carcinogen with unknown relevance to humans (hydrogen peroxide). |
| NTP | No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| OSHA | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |

Signs & Symptoms of Exposure

| | |
|--------------------|---|
| Skin | Redness, burning, itching and pain. |
| Eyes | Eye burns, pain, watering eyes. |
| Respiratory | Coughing, shortness of breath, burning, coughing, wheezing, laryngitis, headache or nausea. |
| Ingestion | Causes irritation and pain. |

| | |
|---------------------------------------|---------------|
| Chronic Toxicity | Not Available |
| Teratogenicity | Not Available |
| Mutagenicity | Not Available |
| Embryotoxicity | Not Available |
| Specific Target Organ Toxicity | Not Available |
| Reproductive Toxicity | Not Available |
| Respiratory/Skin Sensitization | Not Available |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| | |
|-----------------------------|---------------|
| Aquatic Vertebrate | Not Available |
| Aquatic Invertebrate | Not Available |
| Terrestrial | Not Available |

| | |
|--------------------------------------|---------------|
| Persistence and Degradability | Not Available |
| Bioaccumulative Potential | Not Available |
| Mobility in Soil | Not Available |
| PBT and vPvB Assessment | Not Available |
| Other Adverse Effects | Not Available |

13. DISPOSAL CONSIDERATIONS

| | |
|----------------------------------|---|
| Waste Product or Residues | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue. |
| Product Containers | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container. |

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

| | |
|------------------|---------------------|
| US DOT | Not Dangerous Goods |
| TDG | Not Dangerous Goods |
| IMDG | Not Dangerous Goods |
| Marine Pollutant | No |
| IATA/ICAO | Not Dangerous Goods |

15. REGULATORY INFORMATION

| | |
|---------------------------|---|
| TSCA Inventory Status | All ingredients are listed on the TSCA inventory. |
| DSCL (EEC) | All ingredients are listed on the DSCL inventory. |
| California Proposition 65 | Not Listed |
| SARA 302 | Not Listed |
| SARA 304 | Not Listed |
| SARA 311 | Acute Health Hazard |
| SARA 312 | Acute Health Hazard |
| SARA 313 | Not Listed |
| WHMIS Canada | Not Listed |

16. OTHER INFORMATION

| Revision | Date |
|----------|------------|
| Original | 01/04/2020 |
| | |
| | |

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.

Safety Data Sheet

Extend Beverages 0.23% (w/w)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Extend Beverages 0.23% (w/w)

Product Use: Microbicidal formulation with Hydrogen Peroxide & Silver

Nitrate Manufacturer: Alpha Omega Bio (AOBIO).

Office #1, 37th Floor, Sanabil Tower, Sharq.
 State of Kuwait

For More Information: +965-67722001 (Sunday-Thursday 9:00-4:00)

www.aobiopharma.com

In Case of Emergency Call: +965-6772-2001 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Irritant

Target Organs: Eyes, Skin

Signal Words: Danger

Pictograms:



GHS Classification

| | |
|-----------------|------------|
| Skin irritation | Category 2 |
| Eye damage | Category 1 |

GHS Label Elements, including precautionary statements:

Hazard Statements:

| | |
|------|----------------------------|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |

Precautionary Statements:

| | |
|----------------|--|
| P264 | Wash hands thoroughly after handling. |
| P280 | Wear protective gloves/eye protection/face protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |

Potential Health Effects

| | |
|-------------------|--|
| Eyes | May cause serious irritation. |
| Inhalation | Irritating to the respiratory system. Causes irritation to the respiratory tract. |
| Skin | Irritating to skin. Contact causes redness, burns, itching and pain. Prolonged or repeated skin exposure may cause dermatitis. |
| Ingestion | Causes irritation and pain. |

NFPA Ratings

| | |
|------------------------|---------------|
| Health | 1 |
| Flammability | 0 |
| Reactivity | 0 |
| Specific hazard | Not Available |

HMIS Ratings

| | |
|-------------------|---------------|
| Health | 1 |
| Fire | 0 |
| Reactivity | 0 |
| Personal | Not Available |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight % | CAS # | Formula | Molecular Weight |
|-------------------|----------|-----------|-------------------------------|------------------|
| Hydrogen Peroxide | 0.23 | 7722-84-1 | H ₂ O ₂ | 34.01 g/mol |
| Water | 99.7697 | 7732-18-5 | H ₂ O | 18.00 g/mol |
| Silver Nitrate | 0.00021 | 7761-88-8 | AgNO ₃ | 169.87 g/mol |

4. FIRST-AID MEASURES

| | |
|-------------------|--|
| Eyes | Rinse with plenty of water for at least 15 minutes and seek medical attention. |
| Inhalation | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention. |
| Skin | Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention. |
| Ingestion | Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention. |

5. FIREFIGHTING MEASURES

| | |
|--|--|
| Suitable (and unsuitable) extinguishing media | Product is not flammable. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use flooding quantities of water to cool unopened containers. |
| Special protective equipment and precautions for firefighters | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. |
| Specific hazards arising from the chemical | Emits toxic fumes under fire conditions. (See also Stability and Reactivity section). |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--|---|
| Personal precautions, protective equipment and emergency procedures | See section 8 for recommendations on the use of personal protective equipment. |
| Environmental precautions | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements. |
| Methods and materials for containment and cleaning up | Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual |

contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Isolate from combustible material. Store in the dark. Store in vented containers. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Component | Exposure Limits | Basis | Entity |
|-------------------|--------------------------------|-------|--------|
| Hydrogen Peroxide | 1 ppm 1.4 mg/m ³ | TLV | ACGIH |
| | 1 ppm 1.4 mg/m ³ | PEL | OSHA |
| | 1 ppm 1.4 mg/m ³ | REL | NIOSH |

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

| | |
|-------------------|---|
| Eyes | Wear chemical safety glasses with a face shield if splashing is likely to occur. |
| Inhalation | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| Skin | Wear neoprene or nitrile gloves, apron and other protective clothing appropriate to the risk of exposure. |
| Other | Not Available |

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|-------------------------|
| Appearance (physical state, color, etc.) | Clear, colorless liquid |
| Odor | No Odor |
| Odor threshold | Not Applicable |
| pH | Not Available |
| Melting point/freezing point | Not Available |
| Initial boiling point and boiling range | Not Available |
| Flash point | Not Flammable |
| Evaporation rate | Not Available |
| Flammability (solid, gas) | Not Flammable |

| | |
|---|-----------------------------|
| Upper/lower flammability or explosive limit | Not Explosive |
| Vapor pressure | Not Available |
| Vapor density | Not Available |
| Specific gravity | 1.01-1.02 |
| Solubility (ies) | Completely soluble in water |
| Partition coefficient: n-octanol/water | Not Available |
| Auto-ignition temperature | Not Applicable |
| Decomposition temperature | Not Available |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Chemical Stability | Stable |
| Possibility of Hazardous Reactions | Will not occur. |
| Conditions to Avoid | Store out of direct light |
| Incompatible Materials | Brass, copper, powdered metals, iron and iron salts, combustible materials. |
| Hazardous Decomposition Products | Not Available |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

| | |
|--------------------|---------------|
| Skin | Not Available |
| Eyes | Not Available |
| Respiratory | Not Available |
| Ingestion | Not Available |

Carcinogenicity

| | |
|--------------|--|
| IARC | 3-Group 3: Not classifiable as to its carcinogenicity to humans (hydrogen peroxide). |
| ACGIH | A3: Confirmed animal carcinogen with unknown relevance to humans (hydrogen peroxide). |
| NTP | No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| OSHA | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |

Signs & Symptoms of Exposure

| | |
|--------------------|---|
| Skin | Redness, burning, itching and pain. |
| Eyes | Eye burns, pain, watering eyes. |
| Respiratory | Coughing, shortness of breath, burning, coughing, wheezing, laryngitis, headache or nausea. |
| Ingestion | Causes irritation and pain. |

| | |
|---------------------------------------|---------------|
| Chronic Toxicity | Not Available |
| Teratogenicity | Not Available |
| Mutagenicity | Not Available |
| Embryotoxicity | Not Available |
| Specific Target Organ Toxicity | Not Available |
| Reproductive Toxicity | Not Available |
| Respiratory/Skin Sensitization | Not Available |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| | |
|-----------------------------|---------------|
| Aquatic Vertebrate | Not Available |
| Aquatic Invertebrate | Not Available |
| Terrestrial | Not Available |

| | |
|--------------------------------------|---------------|
| Persistence and Degradability | Not Available |
| Bioaccumulative Potential | Not Available |
| Mobility in Soil | Not Available |
| PBT and vPvB Assessment | Not Available |
| Other Adverse Effects | Not Available |

13. DISPOSAL CONSIDERATIONS

| | |
|----------------------------------|---|
| Waste Product or Residues | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue. |
| Product Containers | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container. |

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

| | |
|------------------|---------------------|
| US DOT | Not Dangerous Goods |
| TDG | Not Dangerous Goods |
| IMDG | Not Dangerous Goods |
| Marine Pollutant | No |
| IATA/ICAO | Not Dangerous Goods |

15. REGULATORY INFORMATION

| | |
|---------------------------|---|
| TSCA Inventory Status | All ingredients are listed on the TSCA inventory. |
| DSCL (EEC) | All ingredients are listed on the DSCL inventory. |
| California Proposition 65 | Not Listed |
| SARA 302 | Not Listed |
| SARA 304 | Not Listed |
| SARA 311 | Acute Health Hazard |
| SARA 312 | Acute Health Hazard |
| SARA 313 | Not Listed |
| WHMIS Canada | Not Listed |

16. OTHER INFORMATION

| Revision | Date |
|----------|------------|
| Original | 01/04/2020 |
| | |
| | |

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.



3. Comparison With Various Types of Disinfectants

| <u>Evaluation Criteria</u> | <u>Phenols</u> | <u>Aldehydes</u> | <u>Halogens</u> | <u>AOBIO Products</u> |
|----------------------------|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Surface behavior | Absorbed on rubber and plastics | Unsatisfactory | Good | Excellent |
| Odor | Strong | Pungent | Strong | Odorless |
| Tolerance to skin | Fair | Irritant to skin & eyes | Irritant to skin & eyes | Excellent |
| Carcinogenicity | Yes, proven | Yes, proven | Yes, in the form of chloroform | None |
| Universal Use | Limited | Limited | Moderate | Excellent |