

# AQUARIUM SOLUTIONS® ICH-X®

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## 1. Product Identification

**Synonyms:**

Formalin-Malachite Green Solution

**CAS No.:**

Mixture.

**Molecular Weight:**

N/A

**Chemical Formula:**

N/A

**Product Codes:**

Hikari: 73214, 73216, 73218

**Identified uses:**

Disease and water treatment for aquarium fishes.

## 2. Hazards Identification

**Classification of the substance or mixture**

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Skin sensitization (Category 1), H317

Carcinogenicity (Category 2), H351

Specific target organ toxicity - single exposure (Category 1), H370

For the full text of the H-Statements mentioned in this Section, see Section 16.

### **GHS Label elements, including precautionary statements**

#### **Pictograms**

Signal word Danger

Hazard statement(s)

Harmful if swallowed.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage.

Suspected of causing cancer.

Causes damage to organs.

#### **Precautionary statement(s)**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/ physician.

Rinse mouth.

If skin irritation or rash occurs: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container to an approved waste disposal plant.

## **3. Composition/Information on Ingredients**

### **Hazardous Components**

| Ingredient               | CAS No   | Percent | Hazardous |
|--------------------------|----------|---------|-----------|
| Formaldehyde             | 50-00-0  | <3%     | Yes       |
| Methanol                 | 67-56-1  | <1%     | Yes       |
| Malachite Green Chloride | 569-64-2 | 0.1%    | Yes       |

### **SAF-T-DATA<sup>(tm)</sup> Ratings:**

Health Rating: 3 - Severe (Life)

Flammability Rating: 1 - Slight

Reactivity Rating: 3 - Severe

Contact Rating: 3 - Severe

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

Storage Color Code: Blue (Health Hazard)

## **4. First Aid Measures**

### **Description of first aid measures**

#### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

Move out of dangerous area.

#### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### **In case of skin contact**

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

#### **If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### **Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

#### **Indication of any immediate medical attention and special treatment needed**

no data available

## 5. Fire Fighting Measures

This product is not considered to be a fire hazard.

### **Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **Special hazards arising from the substance or mixture**

Carbon oxides

#### **Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

#### **Further information**

Use water spray to cool unopened containers.

## 6. Accidental Release Measures

### **Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapors, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Vapors can accumulate in low areas.

For personal protection see section 8.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### **Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

### **Reference to other sections**

For disposal see section 13.

## 7. Handling and Storage

### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

No smoking.

For precautions see section 2.

### **Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store at room temperature above 16°C (60°F) and below 38°C (100°F)

### **Specific end use(s)**

Apart from the uses mentioned in section 1 no other specific uses are stipulated

## **8. Exposure Controls/Personal Protection**

### **Components with workplace control parameters**

Component CAS Reg. No. Value Control Parameters Basis

Formaldehyde 50-00-0 C 0.3 ppm USA. ACGIH Threshold Limit Values (TLV)

Remarks: Eye & Upper Respiratory Tract irritation; Suspected human carcinogen

Sensitizer

Methanol 67-56-1 Methanol 15 mg/l Urine ACGIH - Biological Exposure Indices (BEI)

### **Exposure controls**

#### **Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### **Personal protective equipment**

##### **Eye/face protection**

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

##### **Full contact**

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

##### **Splash contact**

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

### **Control of environmental exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Wash hands before breaks and at the end of workday

## **9. Physical and Chemical Properties**

### **Appearance**

Form: liquid  
Color: dark blue-green

### **Safety data**

pH: no data available  
Melting point/freezing point: no data available  
Boiling point: no data available  
Flash point: not applicable  
Ignition temperature: no data available  
Auto-ignition temperature: no data available  
Lower explosion limit: no data available  
Upper explosion limit: no data available  
Vapor pressure: no data available  
Specific Gravity: <1.038 at 25 °C (77 °F)  
Water solubility: 100%  
Partition coefficient:  
n-octanol/water no data available  
Relative vapour density: no data available  
Odor: typical of formaldehyde  
Odor Threshold: no data available  
Evaporation rate: no data available

## 10. Stability and Reactivity

**Reactivity:** no data available

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** no data available

**Conditions to avoid:** Heat, cold

**Incompatible materials:** Strong bases, Acids

**Hazardous decomposition products:** no data available

**Other decomposition products:** no data available

**In the event of fire:** see section 5

## 11. Toxicological Information

**Acute toxicity:** no data available

**Inhalation:** no data available

**Dermal:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:**

Mammal: lymphocyte; DNA damage (Malachite Green Chloride)

Hamster Embryo: DNA damage (Malachite Green Chloride)

**Carcinogenicity:**

IARC: 1 - Group 1: Carcinogenic to humans (Formaldehyde).

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. (Malachite Green Chloride).

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH (Malachite Green Chloride).

NTP: Known to be human carcinogen (Formaldehyde)

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP (Malachite Green Chloride).

OSHA: OSHA specifically regulated carcinogen (Formaldehyde)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA (Malachite Green Chloride).

**Reproductive toxicity:** Suspected human reproductive toxicant; no data available (Malachite Green Chloride)

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard** no data available

**Additional Information:**

RTECS: BQ1180000 (Malachite Green Chloride)

Methyl alcohol may be fatal or cause blindness if swallowed., Cannot be made non-poisonous.

Effects due to ingestion may include:, Nausea, Dizziness, Gastrointestinal disturbance, Weakness, Confusion., Drowsiness, Unconsciousness, May cause convulsions.

Malachite Green Chloride; To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

Liver - Irregularities - Based on Human Evidence (Formaldehyde)

Stomach - Irregularities - Based on Human Evidence (Methanol)

## 12. Ecological Information

**Toxicity to Fishes**

LC<sub>50</sub> - *Lepomis macrochirus* - 0.0218 mg/L - 96.0 h

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

## 13. Disposal Considerations

**Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of container and unused contents in accordance with federal, state



and local requirements.

## 14. Transport Information

### DOT (US)

UN number: 2209 Class: 8 Packing group: III  
Proper shipping name: Formaldehyde solutions  
Reportable Quantity (RQ): 270 lbs  
Marine pollutant: No  
Poison Inhalation Hazard: No

### IMDG

UN number: 2209 Class: 8 Packing group: III EMS-No: F-A, S-B  
Proper shipping name: FORMALDEHYDE SOLUTION  
Marine pollutant: No

### IATA

UN number: 2209 Class: 8 Packing group: III

## 15. Regulatory Information

### OSHA Hazards

Target Organ Effect, Irritant

### SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302: Formaldehyde, CAS-No. 50-00-0, Revision Date 2007-07-01

### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313: Formaldehyde, CAS-No. 50-00-0, Revision Date 2007-07-01

Methanol, CAS-No. 67-56-1, Revision Date 2007-07-01

### SARA 311/312 Hazards

Acute Health Hazard; Chronic Health Hazard

### Massachusetts Right To Know Components

Formaldehyde, CAS-No. 50-00-0, Revision Date 2007-07-01

Methanol, CAS-No. 67-56-1, Revision Date 2007-07-01

Malachite Green Chloride, CAS-No. 569-64-2, Revision Date 1993-04-24

### Pennsylvania Right To Know Components

Water, CAS-No. 7732-18-5

Formaldehyde, CAS-No. 50-00-0, Revision Date 2007-07-01

Methanol, CAS-No. 67-56-1, Revision Date 2007-07-01

Malachite Green Chloride, CAS-No. 569-64-2, Revision Date 1993-04-24

### **New Jersey Right To Know Components**

Water, CAS-No. 7732-18-5

Formaldehyde, CAS-No. 50-00-0, Revision Date 2007-07-01

Methanol, CAS-NO. 67-56-1, Revision Date 2007-07-01

Malachite Green Chloride, CAS-No. 569-64-2, Revision Date 1993-04-24

### **California Prop. 65 Components**

WARNING! This product contains a chemical known to the State of California to cause cancer.

Formaldehyde, CAS-No. 50-00-0, Revision Date 2007-09-28

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Methanol, CAS-No. 67-56-1, Revision Date 2012-03-16

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Malachite Green Chloride, CAS-No. 569-64-2

## **16. Other Information**

**Full text of H-Statements referred to under sections 2 and 3.**

**Acute Toxicity:** Acute toxicity

**Aquatic Chronic:** Chronic aquatic toxicity

**Eye Damage:** Serious eye damage

**Reproductive:** Reproductive toxicity

### **HMIS Rating**

Health hazard: 2

Chronic Health Hazard: \*

Flammability: 0

Physical Hazard 0

### **NFPA Rating**

Health hazard: 2

Fire Hazard: 0

Reactivity Hazard: 0

### **Product Use:**

Disease and water treatment for aquarium fishes.

### **Revision Information:**

None

### **Disclaimer:**

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