

SECTION I

Manufacturer's Name

AquaScience Research Group, Inc.

Emergency Telephone Number

816/842-5936

Address (Number, Street, City, State and ZIP Code)

1100 Gentry Street, North Kansas City, Missouri 64116 USA

Chemical Name and Synonyms

Aqueous solution of formaldehyde and malachite green chloride

CAS Registry Number

Formaldehyde: 50-00-0
Malachite green chloride: 569-64-2
Water: 7732-18-5 Methanol: 67-56-1

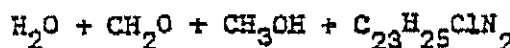
Trade Name and Synonyms

AquaVer Formalin/Malachite Green and Kordon ~~Pro-Kon~~ and Kordon ~~Mid-Ich~~ ↙

Chemical Family

Aqueous solution of an aldehyde, an alcohol and an arylmethane dye

Formula



SECTION II - HAZARDOUS INGREDIENTS

Paints, Preservatives, and Solvents	X	TLV(Units)	Alloys and Metallic Coatings	X	TLV(Units)
Pigments			Base Metal		
Not applicable (= N/A)			N/A		
Catalyst			Alloys		
N/A			N/A		
Vehicle			Metallic Coatings		
N/A			N/A		
Solvents			Filler Material Plus Coating or Core Flux		
Water	94.32	Not established for this mixture	N/A		
Methanol	1.38				
Additives			Others Active ingredient:		Not est for thi mixture
N/A			Formaldehyde	4.2	
Others Active ingredient:		Not established for this mixture			
Malachite green chloride	0.038				

Hazardous Mixtures of Other Liquids, Solids or Gases

None

SECTION III - PHYSICAL DATA

Boiling Point (degrees-F)	N/A	Specific Gravity (20/20)	1.009
Vapor Pressure (mmHg)	Not determined	Percent Volatile by Volume (%)	ca. 99

Vapor Density (Air=1)	Evaporation Rate
Not established	Not established

Solubility in Water
 Freely in all proportions.

Appearance and Odor
 Dark blue-green solution, with an odor characteristic of formaldehyde.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Flammable Limits	Le1	Uel
N/A	Not flammable		

Extinguishing Media
 None required.

Special Fire Fighting Procedures
 None.

Unusual Fire and Explosion Hazards
 None.

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value	Permissible Exposure Limit
Not established.	Not established.

Effects of Overexposure Inhalation: Bronchitis, pulmonary edema, and chemical pneumonitis may occur.

* Emergency First Aid Procedures Inhalation: remove to fresh air. Give artificial respiration if not breathing. Eye: immediately flush with water for at least 15 minutes; get medical attention. Skin: Wash with water. Ingestion: if conscious immediately induce vomiting; get immediate medical help.

SECTION VI - REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable X	

Incompatibility (Materials to Avoid)
 None.

Hazardous Decomposition Products
 N/A

Hazardous Polymerization	Key Danger	Conditions to Avoid
	Will Not React X	

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled

Wash down area with water.

Best Disposal Method

Wash into sewer if allowed by federal, state and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type)

As required for prevention of formaldehyde odor.

Ventilation	Local Exhaust	Special
	recommended	
	Mechanical (General)	Other

Protective Gloves

Rubber or plastic to protect skin from staining.

Eye Protection

Safety glasses or goggles are recommended.

Other Protective Equipment

Laboratory clothing to protect clothing from staining.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storage

Store at room temperature, above 60°F.

Other Precautions

Keep tightly closed when not in use.

SECTION X - REMARKS

This material is sold for use only as a disease treatment for non-food and non-game fishes and for aquarium fishes. It is not intended for use as an economic poison.

Rid-Ich®

#PR16

Controls Diseases Caused by Ichthyophthiriasis ("Ich")

Item No. 37611, 1 fl oz; Item No. 37644, 4 fl oz; Item No. 37656, 16 fl oz; Item No. 47661, 1 gallon

KPD-38

Purposes and Benefits

Kordon's Rid-Ich+ is a combination of two powerful medications which have proven effective in the control of many diseases of freshwater fishes caused by external protozoan (single cell) parasites such as white spot disease, *Ichthyophthiriasis*, *Costia*, *Trichodina*, *Chilodonella* and saltwater external parasites such as *Cryptocaryon* and *Amyloodinium*. The medication can also treat fungal infections in fishes. Rid-Ich+ is recommended as the best treatment for Ich, (white spot disease). Efficacy is improved and the treatment time is often reduced when compared to treatment with either malachite or formalin alone. Additionally, the Rid-Ich+ formula utilizes the less common but also less toxic chloride salt of malachite green (this is the same salt used in Kordon's Malachite Green). The recommended treatment concentration of Rid-Ich+ should be approached with caution, carefully observing the reactions of the treated fishes and ceasing treatment if any undue stress is noted. Remember, when the first outward signs of Ich (scattered spots) are noticed, the fish is often quite heavily parasitized in the gills - lowering the fish's ability to withstand additional stress. The weaker the fishes' condition the poorer its response to any medication. Rid-Ich+ has been shown to be reasonably safe for use on fishes which normally cannot tolerate malachite green alone.

Fishes such as the so-called "scale-less" species (loaches, catfish, etc.) tolerate Rid-Ich+ very well, but be sure to follow cautions noted earlier. Some Mormyrids (elephant noses) may be particularly sensitive and should not be treated with any medication containing malachite green, including Rid-Ich+. Rid-Ich+ will not interfere with biological filtration. The lowering of dissolved oxygen levels in treated water is often associated with the use of formalin or formalin-containing medications. The use of Rid-Ich+ allows a lower concentration of formalin to be utilized. This decreases the chances of lowering the dissolved oxygen; however, (as noted above) treated fishes should be carefully observed for any signs of respiratory distress. It should be noted that while increased temperatures will often shorten the life cycle of some disease-causing organisms, it will also cause a decrease in the dissolved oxygen levels of the water. Do not increase the temperature in tanks or ponds used for treatment, unless sufficient oxygen is assured.

General Diagnosis of Parasitic Diseases of Fishes

The following brief summary of clinical signs often associated with the parasitic protozoans discussed above is intended only as an aid for the beginning aquarist. It is not to be thought of as a definitive diagnostic key. It is also important that the aquarist consult appropriate, accurate references for more specific information regarding disease problems of fishes. In addition, if possible, skin and/or gill smears should be made and examined by a qualified fish diagnostician. Microscopic examination is recommended and is always essential for confirmation of a particular disease. In the clinical signs indicated below, a particular description may be followed by a specific disease causing organism in brackets. It should be understood that different clinical signs can be seen during the disease process and that these can occur as the result of more than one disease-causing organism.

Clinical Signs

Increased respiration; excessive skin mucus; loss of normal body color, scratching on the tank bottom or on objects; lethargic behavior; presence of discrete white spots (0.5-1.0 mm in diameter), randomly distributed on the body [Ich].

Kordon's Bio-Mech®, and return to use without the carbon.

(c) Perform a partial water change of at least 25%. Repeat water changes before each re-treatment with Rid·Ich+.

(d) Calculate the actual volume of water to be treated, taking into consideration the displacement of water by gravel, rock, and ornaments. (To calculate the aquarium's capacity measure its length, height and width in inches, multiply these dimensions together and divide the result by 232. Your answer will be the amount of water in gallons.)

(e) Add 1 teaspoon of Rid·Ich+ per 10 gallons of water. This produces a concentration of 15 ppm of formalin and 0.05 ppm of malachite green.

(f) Treatments may be repeated as often as every 6 hours (depending upon the severity of the particular disease and the tolerance of the diseased fishes). Treatment should be repeated no less than every 24 hours (see step c) and continued for at least 3 days beyond the disappearance of all sign of disease.

Typical treatments of freshwater ich will be six to seven days long (meaning six to seven partial water changes followed by re-dosing of Rid·Ich+). The actual time necessary will depend upon the particular disease, the degree to which the fish are affected, and how early the disease is detected and appropriate treatment started. Note: Failure to properly diagnose a given disease and failure to start appropriate treatment early enough will often result in the death of some or all of the diseased fishes.

(g) After treatment, make a 40% water change. Add Kordon's NovAqua® and AmQuel® before replacing water in the tank.

Some situations may warrant the transfer of the affected fishes to a separate quarantine tank. If you elect to follow this procedure, the original aquarium or pond should remain devoid of any fishes for a period of not less than 4 days to insure that any remaining parasites have expired. Carefully inspect the fishes prior to returning them to the original aquarium or pond to insure that all signs of the infestation are gone.

Life Cycle of Ichthyophthiriasis ("Ich")

Ich has several stages in its life cycle, of which only one stage, the tomites, is vulnerable to treatment. The maturing stage of Ich is the white spots seen on the fish's skin, which are technically called trophozoite cysts. This is the only stage that can be readily observed. When mature, the trophozoites become trophonts, leave the fish, and each produce 200 to 1,000 minute "swarmers", which are released into the water to become motile infecting tomites; these tomites must find a host within 2-3 days or die. It is during this time that Rid·Ich+ is effective in treatment. At a water temperature of about 75° F (24° C), the complete life cycle is usually a week or less in duration; in colder water the cycle becomes longer. For more details on fresh water "ich", click here: [THE LIFE CYCLE OF ICH](#)

Click here to return to Kordon's [Home Page](#)

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