

## MATERIAL SAFETY DATA SHEET

Updated November 2020 by Macjames Global Resources Limited, Plot 10 Divine Avenue, Sunlight Estate, Umuebullu II, Etche LGA, Rivers State, Nigeria.

### SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

**PRODUCT NAME:** **MACJAMES® MALG-12 – Super Algacide**

**APPLICATION/USE:** To kill, prevent and control of Algae growth in Swimming Pools

**MANUFACTURER:** Macjames Global Resources Limited, Port Harcourt, Rivers State, Nigeria.

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**PACKAGING SIZES:** 4 Litres : 20 Litres : 25 Litres : 200 Litres : IBC Tank (1,000 Litres)  
All in HDPE plastic containers (other packaging sizes on request)

### SECTION 2: INGREDIENTS/COMPOSITION

INGREDIENTS	% COMPOSITION (Wt) (APPROX.)
De-ionized water	73.50
Proprietary blend (Copper salts)	≤ 24.50
Hypochlorite	2.00
<b>Total % Composition (Wt)</b>	<b>- 100.00</b>

### SECTION 3: HAZARDS IDENTIFICATION

**PRIMARY ROUTES OF EXPOSURE:** Eye and Skin contacts.

**ACUTE OVEREXPOSURE EFFECTS:**

**EYE CONTACT:** Contact with solution may cause severe burns and permanent eye damage. Vapors are irritating to eyes. Cause irritation and redness.

**SKIN CONTACT:** Causes skin irritation. Causes skin irritation or burns with prolonged contact. May cause a rash and itching of the skin.

**INHALATION:** Inhalation of solution vapor or mist may cause severe irritation or burns to the respiratory tract.

**INGESTION:** Harmful if swallowed. May cause severe damage of gastrointestinal tract. May cause nausea, vomiting and diarrhea. May be fatal if swallowed.

### SECTION 4: FIRST AID MEASURES

**EYES:** If exposed, flush with water for 15 minutes and get medical attention.

**SKIN:** Wash with plenty of water. Seek medical attention if irritation persists.

**INHALATION:** Get fresh air if exposed and seek medical attention if condition does not improve.

**INGESTION:** If ingested, **drink** water and **seek** immediate medical attention. Never give anything by mouth to an unconscious person.

## SECTION 5: FIRE FIGHTING METHODS

**MACJAMES® MALG-12** is a non-combustible liquid; Fire fighters should wear self contained breathing apparatus with full face masks. Use dry chemical, foam, carbon dioxide or water spray for fires involving this product.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

Absorb and collect product and containerize for reuse. For product that cannot be reused and must be disposed of, appropriate disposal methods should be followed. Dilute or flush with plenty water or Management and disposal should follow State/ Federal guidelines for release reporting.

## SECTION 7: HANDLING AND STORAGE

**MACJAMES® MALG-12** can irritate eyes and skin and handling procedures should avoid direct skin or eye contact. Wear appropriate hand gloves and PPE. The product should be stored in the original containers in a cool and dry location. Containers should be air-tight covered and stored at room temperature. Keep from freezing.

## SECTION 8: EXPOSURE CONTROLS, PERSONNEL PROTECTION

Use protective gloves when handling **MACJAMES® MALG-12** or when any contact with the product is possible. Protective goggles or a face shield should be worn when mixing or pouring product to avoid any eye or face contact. Appropriate Coverall/apron should be worn during use and handling of this product.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**MACJAMES® MALG-12** is a non-combustible liquid mixture.

<b>State:</b>	Liquid
<b>Appearance:</b>	Blue
<b>Odour:</b>	Characteristics
<b>pH @ 25°C:</b>	3.5 - 4.0
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	1.18
<b>Boiling Point:</b>	≥ 150°C
<b>Water Solubility:</b>	Completely soluble in water.
<b>Volatility:</b>	Not volatile (contains no VOCs)
<b>Odour Threshold:</b>	No data
<b>Flash Point:</b>	None anticipated
<b>Autoignition temp:</b>	Not applicable - does not burn.

## SECTION 10: STABILITY AND REACTIVITY

**MACJAMES® MALG-12** is a stable liquid in water. However, mixtures with other products should be avoided. Avoid contact with strong acids and alkalis, and do not store near source of heat. Containers should be air-tight covered and stored at room temperature.

## SECTION 11 : TOXICOLOGICAL AND ECOLOGICAL INFORMATION

**MACJAMES® MALG-12** is not known to be a carcinogen or toxic at minute quantities. Overexposure to this product may produce the conditions listed in Section 3 and health hazards. Releases may be reportable under local and state regulations. This product may affect aquatic plants and fish at large quantities. It should be properly/ininitely diluted with water before being released into the environment.

**SECTION 12: TRANSPORTATION AND DISPOSAL INFORMATION**

**MACJAMES® MALG-12** is a non-combustible Liquid. Should be transported as packaged in HDPE (plastic) containers. Should be properly diluted with water before disposal or disposal should be conducted in accordance with local and Federal Environmental guidelines.

**SECTION 13: REGULATORY INFORMATION**

Chemical component of this product at the proportion has moderate effect on health and aquatic life according regulatory information and should be handled with care according to this Material Safety Data Sheet and local and Federal Environmental guidelines. See the HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) RATING below

**SECTION 14: OTHER INFORMATION**

**HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) RATING.**

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>REACTIVITY</b>	<b>0</b>
<b>PERSONAL PROTECTION</b>	<b>B</b>

- 0 - Minimal**
- 1 - Slight**
- 2 - Moderate**
- 3 - High**
- 4 - Very High**

**DISCLAIMER:** This MSDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by Macjames Global Resources Limited to be dependable and is accurate to the best of the Company's knowledge. It is not meant to be an all-inclusive document on worldwide hazard communication regulations.

This information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage or release to the environment. Macjames Global Resources Limited assumes no responsibility for injury to the recipient or third persons or for any damage to any property resulting from misuse of the product.

