

MATERIAL SAFETY DATA SHEET

UPDATED OCTOBER 2022 BY MACJAMES GLOBAL RESOURCES LIMITED, NO. 10 MBAMARA STREET, UMUEBULLU II, ETCHE LGA, RIVERS STATE, NIGERIA.

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **MACJAMES® MPHAD-16 - pH Adjuster**

APPLICATION/USE: pH Adjuster for water treatment (pH plus/Builder) - Alkaline

DPR Approval No.: **DPR/HSE.04/003.700/2019/008**

ISO 9001:2015 Cert. No.: **N1683535**

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PACKAGE SIZES: 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	60.0
Proprietary blend	35.0
Sodium Hydroxide (≥95%)	5.0
Total % Composition (Wt)	- 100.0

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® MPHAD-16 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® MPHAD-16 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® MPHAD-16** 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® MPHAD-16 is a non-combustible, non-toxic, viscous liquid mixture.

State:	Liquid
Appearance:	Clear to slightly turbid
Odour:	Odourless to caustic
pH @ 25°C:	11.0 – 12.0
Specific Gravity (H₂O = 1):	1.30
Boiling Point:	≥140°C
Water Solubility:	Completely soluble in water.
Volatility:	Not volatile (contains no VOCs)
Viscosity:	3.58 Centipoise
Odour Threshold:	No data
Flash Point:	None anticipated (water based)
Autoignition temp:	Not applicable - does not burn.

SECTION 10: STABILITY AND REACTIVITY

MACJAMES® MPHAD-16 is an alkaline, stable water-based liquid. However, as with this pH adjuster for water treatment, mixtures with other products should be avoided. Avoid contact with strong acids, and do not store in metallic containers. Containers should be air-tight covered and stored at room temperature.

SECTION 11 : TOXICOLOGICAL AND ECOLOGICAL INFORMATION

MACJAMES® MPHAD-16 is not known to be a carcinogen or toxic. Overexposure to this product may produce the conditions listed in Section 3. Releases may be reportable under local and state regulations. This product may affect aquatic plants and fish. It should be properly diluted with water before being released into the environment.

SECTION 12: TRANSPORTATION AND DISPOSAL INFORMATION

MACJAMES® MPHAD-16 is a non-combustible Liquid. Should be transported as packaged in HDPE (plastic) containers (non-metallic 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 is highly alkaline at the proportion and should be handled with care according to this Material Safety Data Sheet and local and Federal Environmental guidelines.

SECTION 14: OTHER INFORMATION

Consult the readily available Technical Data Sheet (TDS) for **MACJAMES® MPHAD-16** application and other technical details

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) RATING.

HEALTH	1	0 - Minimal
FLAMMABILITY	0	1 - Slight
REACTIVITY	0	2 - Moderate
PERSONAL PROTECTION	B	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.

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