



MATERIAL SAFETY DATA SHEET

Updated November 2019 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® MPHAD-16 - pH Adjuster

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

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

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

TELEPHONE: +234 818 959 6273

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PACKAGING SIZES: 20 Litres: 25 Litres: 200 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.

MACJAMES GLOBAL RESOURCES LIMITED

FACTORY: PLOT 10 DIVINE AVENUE, SUNLIGHT ESTATE, UMUEBULU II, NEAR OYIGBO, RIVERS STATE, NIGERIA.

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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. 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.

MINISTRY OF PETROLEUM RESOURCES

DEPARTMENT OF PETROLEUM RESOURCES

7, KOFO ABAYOMI STREET, VICTORIA ISLAND, LAGOS

P.M.B. No: 12650

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Website: www.dpr.gov.ng



Ref. No: DPR/HSE.04/003.700/2019/008

Date: 5th December 2019

The Managing Director
Macjames Global Resources Limited
37 Trans Amadi Industrial Layout
Rumuobiakani, Port Harcourt.

Dear Sir,

APPROVAL FOR USE OF MACJAMES® MPHAD-16 pH ADJUSTER IN THE NIGERIAN OIL AND GAS INDUSTRY.

We acknowledge receipt of your application dated 20th November 2019 in respect of the above subject.

2. Following the satisfactory review of the product technical data, as well as the Safety Data Sheet submitted, we wish to convey our approval of **MACJAMES® MPHAD-16** for use in the Nigerian Oil and Gas Industry.

3. This approval is issued under the following conditions:

- I. The use of **MACJAMES® MPHAD-16** shall be governed by the provisions of section 25 of the Petroleum (Drilling and Production) Regulations, 1969 as well as the Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN 2018), which were both issued pursuant to section 9(1)(b)(iii) of the Petroleum Act, 1969.
- II. Any changes made to the composition of this product or reformulation of same either wholly or partially without the consent of the DPR, automatically renders this approval invalid. You are therefore advised to notify the DPR of such changes or reformulation for the purpose of re-certification of the product, prior to further usage.
- III. User (s) of the product shall seek the approval of the Department for its use under specified terms and conditions and shall remain fully responsible for any damage(s) to the local environment on account of the use of the product.

4. Finally, you are please reminded to always ensure that under no condition shall this product be sold outside the validity of its approval.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Abdurrahman, A.S.'.

Abdurrahman, A.S

For: Director, Department of Petroleum Resources