



MATERIAL SAFETY DATA SHEET

UPDATED MARCH 2018 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: SaferEx - Multiaction Water Purifier

CHEMICAL FAMILY: Disinfectant, Coagulant and Clarifier

SYNONYMS: Water disinfectant, coagulant and clarifier

MATERIAL USE: Recommended for containerized river/pond/borehole water treatment for sanitation and hygiene uses.

DPR Approval No.: DPR/HSE.04/003.700/2018/038

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

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PACKAGING AND NUMBER CODES: 1 Litre: 4 Litres : 20 Litres: 25 Litres : 30 Litres: 200 Litres

SECTION 2: INGREDIENTS/COMPOSITION

INGREDIENTS	% COMPOSITION (Wt) (APPROX.)
De-ionized water	83.23
Proprietary Blend	10.77
Sodium Hydroxide	1.50
Hypochlorite salts	4.50
Total % Composition (Wt)	- 100

SECTION 3: HAZARDS IDENTIFICATION

PRIMARY ROUTES OF EXPOSURE: Eye and Skin contacts.

ACUTE OVEREXPOSURE EFFECTS:

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

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

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

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

SECTION 4: FIRST AID MEASURES

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

MACJAMES GLOBAL RESOURCES LIMITED

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

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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

SaferEx 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 dispose of contaminated product accordingly. 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

SaferEx 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. Keep from freezing.

SECTION 8: EXPOSURE CONTROLS, PERSONNEL PROTECTION

Use protective gloves and coverall when handling **SaferEx** 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

SaferEx is a non-combustible and non-toxic liquid mixture.

State:	Liquid
Appearance:	Pale yellow to clear liquid
Odour:	Characteristic Hypochlorite
pH:	5.8 - 6.8
Specific Gravity (H₂O = 1):	1.2
Boiling Point:	>100°C
Water Solubility:	Completely soluble in water.
Volatility:	Not volatile (contains no VOCs)
Evaporation Rate (H₂O = 1):	≥1
Freezing Point:	Below. - 9°C.
Odour Threshold:	No data
Flash Point:	None anticipated (water based)
Auto-ignition temp:	Not applicable - does not burn.

SECTION 10: STABILITY AND REACTIVITY

SaferEx is a stable water based liquid. However, as with any such water treatment chemical, mixtures with other products should be avoided. Avoid contact with strong acids, and do not store in metallic containers.



SECTION 11 : TOXICOLOGICAL AND ECOLOGICAL INFORMATION

SaferEx 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

SaferEx is a non-combustible Liquid. Should be transported in its original plastic/non-metallic container. Should be properly diluted with water before disposal or disposal should be conducted in accordance with local and Federal Environmental guidelines.

UN/ID No.: Not allocated

SECTION 13: REGULATORY INFORMATION

Chemical component of this product is slightly acidic at the proportion and should be handled with care according to this Material Safety Data Sheet.

SECTION 14: OTHER INFORMATION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) RATING.

HEALTH	2	0 - Minimal
FLAMMABILITY	0	1 - Slight
PHYSICAL	1	2 - Moderate
PERSONAL PROTECTION	C	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

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Ref. No: DPR/HSE.04/003.700/2018/038

Date: 22nd November 2018

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

Dear Sir,

RE-APPLICATION FOR CERTIFICATION/APPROVAL OF OILFIELD CHEMICALS

Arising from the review of the products SDS and the affirmation of their non-hazardous as well as non-toxic characteristics to aquatic organisms, we are pleased to convey our approval for the use of the SaferEX- Multiaction Water Purifier in the Oil and Gas Industry.

3. This approval is for a period of three (3) years in the first instance from the date of this letter and is subject to periodic review by the Department as deemed necessary.
4. The use of this products shall be governed by the provision of section 25 of the petroleum (Drilling and Production) Regulations, 1969 as well as Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN 2002) which were both issued pursuant to section 9(1)(b)(iii) of Petroleum Act, 1969.
5. Furthermore, any change in the composition or reformulation of this product that may wholly or partially alter the properties/ data submitted shall be promptly communicated to the Director of Petroleum Resources for the purpose of re-certification, as such changes automatically render this approval invalid.
- 6 Finally, this approval notwithstanding, the user of the product shall seek approval the Director of Petroleum Resources for the specific use under specified terms and conditions; and shall remain fully responsible for any damage done to the local environment on account of the use of the product.

Yours faithfully,

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

Abdurrahman, A.S

For: Director of Petroleum Resources