

MATERIAL SAFETY DATA SHEET

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

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: SaferEx - Multiaction Water Purifier

CHEMICAL FAMILY: Disinfectant, Coagulant, Clarifier and Purifier

SYNONYMS: Water disinfectant, coagulant, clarifier and purifier

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

ISO 9001:2015 Cert. No.: N1683535

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

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

TELEPHONE: +234 818 959 6273

PACKAGE SIZES: 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.
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.

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