ARTICLE INFORMATION SHEET

This Article Information Sheet (AIS) provides relevant battery information to retailers, consumers, OEMs and other users requesting a GHS-compliant SDS. Articles, such as batteries, are exempt from GHS SDS classification criteria. The GHS criteria is not designed or intended to be used to classify the physical, health and environmental hazards of an article. Branded consumer batteries are defined as electro-technical devices. The design, safety, manufacture, and qualification of GFS branded consumer batteries follow ANSI and IEC battery standards.

SECTION 1- DOCUMENT INFORMATION

Product Name:GFS Battery
Chemical System:Alkaine Manganese Dioxide-Zinc
Designed for Recharge:No
Prepared by:GFS Battery

Document Number: 20230118
Date Prepared:January 2023
Valid Until:Decmber 2026

SECTION 2- COMPANY INFORMATION

GFS Brands,
Room 309,Hua Chuang Da Yi Jing Building,Xinan Street
45 Block,Baoan Zone,Shenzhen P.R.C

Email for Information:
atuto@126.com
www.gfsbattery.com

SECTION 3- ARTICLE INFORMATION

Description	Alkaline Manganese Dioxide-Zinc Battery
Use	Portable power source
Brand	GFS
IEC Designation	LR6 LR03
Sizes	AA(LR6),AAA(LR03)
Image	

SECTION 4-ARTICLE CONSTRUCTION

IMPORTANT NOTE: The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

MATERIAL OR INGREDIENT	PEL (OSHA)	TLV (ACGIH)	%/wt.
Graphite (CAS# 7782-42-5)	15 mg/m3 TWA (total dust) 5 mg/m3 TWA (respirable fraction)	2 mg/m3 TWA (respirable fraction)	2.5~3.6
Manganese Dioxide (CAS# 1313-13-9)	5 mg/m3 Ceiling (as Mn)	0.2 mg/m3 TWA (as Mn)	35~47.8
Potassium Hydroxide (CAS# 1310-58-3)	None established	2 mg/m3 Ceiling	4.8~9.8
Zinc (CAS# 7440-66-6)	15 mg/m3 TWA PNOR* (total dust) 5 mg/m3 TWA PNOR* (respirable fraction)	10 mg/m3 TWA PNOC** (inhalable particulate) 3 mg/m3 TWA PNOC** (respirable particulate)	14~18.9
Non-Hazardous Components			
Steel(iron CAS# 65997-19-5)	None established	None established	12~18
Ni-plating(CAS#7440-020)	None established	None established	〈0.5
Copper(CAS#7440-50-8)	None established	None established	1.4~2.9
Water (CAS# 7732-18-5)	None established	None established	5.6~10.8
Polypropylene（CAS# 9003-07-0)	None established	None established	4~10

* PNOR: Particulates not otherwise regulated

**PNOC: Particulates not otherwise classified

GFS Alkaline Manganese Dioxide-Zinc have zero added mercury and cadmium

Applicable Battery Industry Standards

North America Standards	ANSI C18.1M Part 1	ANSI C18.1M Part 2	ANSI C18.4
International Standards	IEC 60086-1	IEC 60086-2	IEC 60086-5
National standards of P.R.C	GB/T 8897.1-2021	GB/T 8897.2-2021	GB/T 8897.5-2021

SECTION 5 – HEALTH AND SAFETY

Ingestion: Do not induce vomiting or give food or drink. Seek medical attention immediately. CALL Tel:+86-755-83023584(Working hours) +86-18617161045(Holiday))

The following instructions apply to exposure of internal components

Inhalation: Provide fresh air and seek medical attention.

Skin Contact: Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention.
Eye Contact: Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.

SECTION 6 – FIRE HAZARD & FIREFIGHTING

In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture.
Fire fighters should wear self-contained breathing apparatus.

SECTION 7 - HANDLING AND STORAGE

Handling: Accidental short circuit for a few seconds will not seriously affect the battery. Prolonged short circuit will cause the battery to loseenergy through heating, and can cause the safety release vent to open. Sources of short circuits include jumbled batteries in bulk containers,metal jewelry, metal covered tables or metal belts used for assembly of batteries into devices.
Soldering directly to a battery is not recommended. If welding to the battery is required, consult your GFS sales representative forproper precautions to prevent seal damage or short circuit.
Charging: This battery is manufactured in a charged state. It is not designed for recharging. Recharging can cause battery leakage or, insome cases, high pressure rupture. Inadvertent charging can occur if a battery is installed backward
Labeling: The label acts as an electrical insulation for the battery can. Damage to the label can increase the potential for a short circuit.

Storage: Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life.
Mechanical Containment: Designers of any water or air-tight device should be aware of the normal evolution of hydrogen gas from alkaline batteries. This gas must be either absorbed or allowed to escape to avoid a potential safety issue.
For normal storage, the temperature should be between-10°C and +30°C and never exceed+35°C.
WARNING: Do not install backwards, charge, put in fire, or mix with other battery types as it may explode or leak causing injury.
Replace all batteries at the same time.

SECTION 8 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable federal, state and local regulations. Appropriate disposal technologies include incineration and land filling.
When the battery is worn out,dispose of it under the ordinance of each local government regulations.

SECTION 9 – TRANSPORT INFORMATION

Avoid short-circuiting and protected from movement that could lead to short-circuiting.

Handling
During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to condensation.
During the transportation do not allow packages to be dropped or damaged.
UN Number and UN Class: Not applicable

Not dangerous goods for air transportation and sea transportation. Alkaline batteries (sometimes referred to as "Dry cell" batteries) are not listed as dangerous goods under the ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, the IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations, IATA Dangerous Goods Regulations, ICAO Technical Instructions and the U.S. hazardous materials regulations (49 CFR). These batteries are not subject to the dangerous goods regulations provided they meet the requirements contained in the following special provisions.
For air transportation,the words "Not Restricted, as per Special Provision A123" must be included in the description of the goods on the Air Waybill, when an Air Waybill is issued.

SECTION 10 - REGULATORY INFORMATION

USA EPA mercury containing and rechargeable battery management Act of 1996: No mercury added

Canada All intentionally-added components of this product are listed on the Canadian DSL.This product has been classified in accordance with the hazard crieria of the Canadian Controlled Products Regulations(CPR) and this AIS contains all information required by the Controlled Products Regulations.
EU Battery Directive:2006/66/EC, 2013/56/EU,GFS batteries are compliant with all aspects of the Directive
REACH: Subject battery products are "**articles**" under REACH and not subject to REACH registration or e-SDS requirements. To the best of our knowledge, GFS alkaline batteries do not contain any of the 224 SVHCs per the ECHA updated Candidate List of June 10, 2022
China Battery Directive： GB/T8897.1-2021,GB/T889.2-2021,GB/T8897.5-2021

Article Definitions
OSHA Hazard Communication Standard, Section 1910.1200(c)

SECTION 11 – GHS OTHER INFORMATION

None

Acronym Glossary

ANSI:American National Standards Institute
CPSC: Consumer Product Safety Commission
CPSIA: Consumer Product Safety Improvement Act
DTSC: Department of Toxic Substances Control
GHS: Globally Harmonized System for Hazard Communication
EPA: Environmental Protection Agency
FHSA: Federal Hazardous Substances Act
RCRA: Resource Conservation and Recovery Act
IEC: International Electrotechnical Commission
OSHA: Occupational Safety and Health Administration
SDS: Safety Data Sheet
TSCA: Toxic Substances Control Act
SVHC: Substances of Very high Concern