



Section 1. Product and Company Identification.

1.1 Model Number; MM21 v1
1.2 Description; 10-Function Professional Auto-Ranging Digital Multimeter
Battery: 1.5 Volts. 12 grams.

1.3 Manufacturer;
Sealey Group.
Kempson Way,
Bury St. Edmunds,
Suffolk.
IP32 7AR

1.4 Emergency telephone number; 44 (0) 1284 757 500 (Office Hours)

Date of source compilation; 19 March 2024

Section 2. Hazards Identification.

Battery is hermetically sealed and does not present a hazard under normal conditions of use.
Inappropriate handling and / or use can cause electrolyte to leak.

Ingestion: Contents of an open battery can cause chemical burns of mouth, oesophagus, and gastrointestinal tract.
Inhalation: Contents of an open battery can cause respiratory irritation.
Skin Contact: Contents of an open battery can cause skin irritation.
Eye Contact: Contents of an open battery can cause irritation.



Section 3. Substances.

3.1 Chemical Name (substance)	3.1 CAS No.	3.2 Concentration Weight	Classification	
			Hazard Class & Category Code	Hazard Statements
Manganese Dioxide	1313-13-9	23%	Acute Tox. 4 Acute Tox. 4	H332 H302
Zinc Powder	7440-66-6	20%	Aquatic Acute 1 Aquatic Chronic 1	H400 H410
Zinc Chloride	7646-85-7	10%	Acute Tox. 4 Skin Corr. 1B Aquatic Acute 1 Aquatic Chronic 1	H332 H400 H410
Pure Water	7732-18-5	10%	Not Classified	-
Acetylene Black	1333-86-4	8%	Not Classified	-
PVC	9002-86-2	6%	Not Classified	-
PP	9003-07-0	5%	Not Classified	-
PE	9002-88-4	5%	Not Classified	-
Iron	7439-89-6	5%	Not Classified	-
Ammonium Chloride	12125-02-9	4%	Acute Tox. 4 Eye Irrit. 2	H302 H319
Zinc Oxide	1314-13-2	4%	Aquatic Acute 1 Aquatic Chronic 1	H400 H410

For full text of Phrases and Statements, see Section 16.



Section 4. First Aid Measures.

Under normal conditions of use, the electrode materials and liquid electrolyte they contain, do not pose a risk to eyes or skin.

In the case of contact with internal substances;

4.1 Description of first aid measures

Inhalation

If inhaled, seek immediate medical attention.

Skin Contact

Remove contaminated clothing.

Flush affected area(s) with copious amounts of water for at least 15 minutes.

Get medical attention.

Eye Contact

Irrigate eyes with water for at least 15 minutes while raising eyelid(s).

Get medical attention.

Ingestion

If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Protection of First Aiders:

Use personal protective equipment.

Avoid contact with skin, eyes, and clothing.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.



Section 5. Fire Fighting Measures.

Recommended practice;

Always ensure that Personal Protection Equipment (PPE) is used.

If a battery becomes hot, immediately remove it from flammable materials and place on a non-combustible surface.

If possible, place a disintegrating device outdoors and allow it to burn out.

Fire condition; NB; ensure that electrical devices are turned off. Prevent electric shock risk.

If any batteries are burning, water may not extinguish them, but will cool the adjacent batteries and control the spread of fire.

5.1. Extinguishing media

The staff must wear a full-face filter mask or isolated breathing apparatus. The staff must wear clothes which can protect the body from fire. Remove the container to a safe place open space as soon as possible. Spray water on the containers to keep them cool until fire is extinguished.

Plenty of water, dry chemical, or carbon dioxide.

NB: fire-fighting water runoff may be corrosive / toxic and may cause adverse environmental impact.

5.2. Special hazards arising from the substance or mixture

Hazard characteristics; Exposure to heat can cause venting of the liquid electrolyte. Battery may burst and release hazardous decomposition products when exposed to fire.

Hazardous combustion products; Corrosive gas may be emitted.

5.3. Advice for fire-fighters

Fragments may be ejected from a fire.

Fire Fighters should wear self-contained breathing apparatus and appropriate Personal Protective Equipment.



Section 6. Accidental Release Measures.

6.1. Personal precautions, protective equipment and emergency procedures

In the event of battery rupture and leakage,

- Ventilate the area and evacuate the area, until fumes have cleared.
- Wear appropriate protective clothing (see Section 7) to prevent eye and skin contact and to prevent inhalation of vapours or fumes.
- Remove sources of ignition.

6.2. Environmental precautions

No information available.

6.3. Methods and material for containment and cleaning up

Absorb released materials with inert absorbent (dry sand or soil).

Collect released materials into sealed plastic bag or container.

Prevent material from contaminating soil or entering sewers or waterways.

Do not dispose of released materials with domestic waste

Do not allow product to enter ground water, water course or sewerage system.

Dispose of released materials in accordance with local authority regulations.

6.4. Reference to other sections

See Section 7 for information on Safe Handling

See Section 8 for information of Personal Protective Equipment.

See Section 13 for information on disposal.

Section 7. Handling and Storage.

7.1. Precautions for safe handling

Never dismantle or modify a battery.

Do not short circuit a battery. A short circuit causes heating and can lead to ignition of surrounding materials.

Physical contact with a short-circuited battery can cause skin burn.

Do not put the battery into a fire or heat it. Do not leave near a heat source.

Do not expose the battery to excessive physical shock or vibration.

Do not immerse or throw into water.

The batteries should not be opened, destroyed or incinerated.

7.2. Conditions for safe storage, including any incompatibilities

Always store batteries in an appropriate container to prevent contact with conductive materials.

Do not allow contact with water.

Store in original container. Keep container tightly closed.

Store in a dry, cool place.

Store at 20 °C (68°F); room temperature

Store away from ignition sources, heat, and incompatible materials.

7.3. Specific end use(s)

Intended for use as the battery for the Model Number identified in 1.1 with Description stated in 1.2



Section 8. Exposure Controls/Personal Protection.

8.1. Control parameters

In the event of battery rupture and leakage:

Ventilate the area.

Remove sources of ignition.

Store in a cool dry place.

8.2. Exposure controls

The use of Personal Protective Equipment (PPE) is not necessary under conditions of normal use.

If handling a leaking or ruptured battery, ensure that the following Personal Protective Equipment (PPE) is used.

Eye/Face Protection

Not necessary under normal conditions. Wear appropriate PPE if handling a leaking or ruptured battery.

Skin Protection

Not necessary under normal conditions. Wear appropriate PPE if handling a leaking or ruptured battery.

Respiratory Protection

Acid gas filter mask or self-contained breathing apparatus.

Section 9. Physical and Chemical Properties.

9.1. Information on basic physical and chemical properties

The following information is not a technical specification or sales specification.

(a) Appearance:	Cylinder, solid.
(b) Odour:	If leaking, smells of medical ether.
(c) Odour threshold;	No information available.
(d) pH:	No information available.
(e) Melting point/freezing point;	No information available.
(f) Initial boiling point and boiling range;	No information available.
(g) Flash point;	No information available.
(h) Evaporation rate;	No information available.
(i) Flammability (solid, gas);	No information available.
(j) Upper/lower flammability or explosive limits;	No information available.
(k) Vapour pressure;	No information available.
(l) Vapour density;	No information available.
(m) Relative density;	No information available.
(n) Solubility (ies);	No information available.
(o) Partition coefficient: n-octanol/water;	No information available.
(p) Auto-ignition temperature;	No information available.
(q) Decomposition temperature;	No information available.
(r) Viscosity;	No information available.
(s) Explosive properties;	No information available.
(t) Oxidising properties.	No information available.

9.2 Other information

No information available.



Section 10. Stability and Reactivity.

10.1. Reactivity	No information available.
10.2. Chemical stability	Stable under normal conditions.
10.3. Possibility of hazardous reactions	No information available.
10.4. Conditions to avoid	Fire source, disassembly, short circuit, crushes, deformation, high temperatures over 100°C, direct sunlight and immerse in water.
10.5. Incompatible materials	No information available.
10.6. Hazardous decomposition products	No information available.

Section 11. Toxicological Information.

11.1. Information on toxicological effects

Potential health risks;

Eye; Contact with battery contents may cause severe irritation and burns. Eye damage is possible.

Skin; Contact with battery contents may cause severe irritation and burns.

Absorption through the skin will cause localized inflammation.

Ingestion; may cause severe and permanent damage to the digestive tract. May cause circulatory system failure.

Contents of an open battery can cause serious chemical burns to the mouth, oesophagus and gastrointestinal tract.

Inhalation; Inhalation of vapours or fumes released due to heat or leaking batteries may cause respiratory irritation. Irritation may lead to chemical pneumonitis.

Inhalation can produce chronic productive cough and shortness of breath.

Section 12. Ecological Information.

When properly used and disposed of correctly, the battery does not present environmental hazard.

Do not release internal components into water ways, wastewater, or ground water.

Section 13. Disposal Considerations.

Disposal of the battery must be in accordance with local authority regulation requirements for hazardous waste treatment and hazardous waste transportation.

The battery should be completely discharged prior to disposal and the terminals taped or capped to prevent short circuit.

Do not dispose of batteries at landfill sites.

Do not incinerate batteries.



Section 14. Transport Information.

ADR. International Carriage of Dangerous Goods by Road.

Not subject to ADR.

IATA. International Air Transport Association.

Special Provision A123.

Batteries not otherwise listed as Dangerous Goods concerning transport by air, no UN Code refers.

Examples of such batteries are (but not restricted to) alkali-manganese, zinc-carbon and nickel cadmium batteries.

Any electrical battery or battery powered device, equipment or vehicle having the potential of a dangerous evolution of heat must be prepared for transport so as to prevent:

- (a) a short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or in the case of equipment, by the disconnection of the battery and protection of exposed terminals); and
- (b) accidental activation.

The words "Not restricted, as per Special Provision A123" must be included in the description of the article on the Air Waybill when required.

IMDG. International Maritime Dangerous Goods.

Not subject to IMDG.



Section 15. Regulatory Information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
No information available.

15.2. Chemical safety assessment
No information available.

Section 16. Additional Information.

Full text of Phrases and Statements used in Section 3;

- H302: Harmful if swallowed.
- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.

The above information is believed to be accurate and represents the best information currently available.
No warranty is expressed or implied by the above information.
We assume no liability resulting from use of the above information.
The end user should conduct their own investigations to determine the suitability of the above information for their particular purpose.

Issue level	Date	Revisions
1	19/03/2024	First issue.
2	08/11/2024	Section 1.2

End of Safety Data Sheet.