Safety Data Sheet



Section 1. Product and Company Identification.

1.1 Model Number; 1.2 Description; AK9636D v2 Digital Height Gauge 0-300mm(0-12") Battery: 3 Volts. 0.24 Ah. 0.72 Wh. 3 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; 01 January 2016

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.

			Classification	
3.1 Chemical Name (substance)	3.1 CAS No.	3.2 Concentration Weight	Hazard Class & Category Code	Hazard Statements
Manganese Dioxide	1313-13-9	15 - 40%	Acute Tox. 4	H332
			Acute Tox. 4	H302
Propylene Carbonate	108-32-7	2 - 6%	Eye Irrit. 2	H319
1,2-Dimethoxyethane	110-71-4	1 - 5%	Flam. Liq. 2	H225
			Repr. 1B	H360
			Acute Tox. 4	H332
Lithium or Lithium Alloy	7439-93-2	1 - 5%	Water-react. 1	H260
			Skin. Corr. 1B	H314
Graphite	7782-42-5	1 - 4%	Not classified	-
Lithium Perchlorate	7791-03-9	0.1 - 1.5%	Not classified	-

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

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Section 4. First Aid Measures.

Lithium Batteries do not pose a risk to eyes or skin under normal circumstances. In the case of contact with internal substances;

4.1 Description of first aid measures

Inhalation

If breathing difficulties develop, remove the person to fresh air.

Loosen close fitting clothing.

Ensure that person is warm.

If mouth to mouth resuscitation is necessary, the person conducting this must takes steps to reduce the risk of contamination from toxic / corrosive substances that may be present.

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, do not induce vomiting. Give large amounts of water but *do not* do this is casualty is unconscious.

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

Extinguishers;

Only use Graphite based CO₂ (Carbon dioxide), Dry Powder or Foam. Copper powder fire extinguishers, sand, dry ground dolomite or soda ash may also be used. These materials act as smothering agents.

If possible, use a LITH-X (powdered graphite) extinguisher on small fires. This material acts as a smothering agent. A sodium chloride powder extinguisher IS NOT suitable for use on Lithium Batteries.

It may not be possible to extinguish burning lithium batteries. Burning batteries will burn themselves out. <u>Do not use water</u> with **LITH-X (powdered graphite)**.

- If a LITH-X (powdered graphite) extinguisher is not available;
- Use copious amounts of water in a fine spray to swamp a fire.

Continue to use copious amounts of water until the fire is extinguished and the batteries are cooled. NB: **Lithium reacts with water to form Hydrogen.** The fire will not be extinguished immediately. Be aware of the increased risk of explosion.

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; thermal decomposition can lead to the release of toxic fumes. **Hazardous combustion products;** carbon dioxide, carbon monoxide, lithium oxide fumes.

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.
- 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.

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

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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.

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 Chemical grade full face shield

Skin Protection

Acid resistant, natural rubber or neoprene gloves. Protective rubber apron Appropriate Personal Protection with long sleeves and long trousers.

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.

8 1	•
(a) Appearance:	Coin shape.
(b) Odour:	No information available.
(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.
(I) 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.

No information available.

Stable.

Water.

Section 10. Stability and Reactivity.

10.1. Reactivity 10.2. Chemical stability 10.3. Possibility of hazardous reactions 10.4. Conditions to avoid **10.5.** Incompatible materials 10.6. Hazardous decomposition products

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 Good	ds by Road.			
14.1. UN number	UN 3091			
14.2. Name and Description	Lithium metal batteries packed with Equipment			
·	Label	9		
	Special Provisions	188 230 376 377 636		
	Limited Quantities	0		
	Excepted Quantities	EO		
	Packing Instructions	P903 P908 P909 LP903 LP904		
	Special Packaging Provisions	-		
14.2 Transport bazard class(as)	Class	9		
14.3. Transport hazard class(es)	Classification Code			
		M4		
	Transport Category	2		
	Tunnel restriction code	E		
14.4. Packing group	-			
14.5. Environmental hazards	Does not present an environmental hazard.			
14.6. Special precautions for user	No special precautions necess	ary.		
IATA. International Air Transport Association.				
14.1. UN number	UN 3091			
14.2. UN Proper Shipping Name/Description	Lithium metal batteries packed with Equipment			
	Hazard Label.	Miscellaneous		
	Excepted Quantity	EO		
	Packaging Instructions Passe	nger 969		
	Ltd Qt	-		
	Cargo			
	ERG C			
	Special Provisions	A99 A164		
	Special Flowslons	A181 A185		
14.3. Transport hazard class(es)	Class or Division	9		
-		5		
14.4. Packing group	-	outol horord		
14.5. Environmental hazards	Does not present an environm			
14.6. Special precautions for userNo special precautions nece		ary.		
IMDG. International Maritime Dangerous Good				
	. UN number UN 3091			
14.2. UN proper shipping name	Lithium metal batteries packed with Equipment			
	Special Provisions	188 230 360 957		
	Limited Quantities	0		
	Excepted Quantities	EO		
	Packaging Instructions	P903		
	Packing Provisions	-		
14.3. Transport hazard class(es)	Class or Division	9		
· · · /	Subsidiary Risk(s)	-		
14.4. Packing group				
14.5. Environmental hazards	Does not present an environm	iental hazard.		
14.6. Special precautions for user	No special precautions necessary.			
14.7. Transport in bulk – Maritime only.	Bulk transport is not applicable to this product			
$\mathbf{z}_{\mathbf{\tau}}$, $\mathbf{r}_{\mathbf{r}}$, \mathbf{r}	ansport in bulk – Martime only. Bulk transport is not applicable to this product			

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;

H225: Highly flammable liquid and vapour.

H260: In contact with water releases flammable gases.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.

H360: May damage fertility or the unborn child.

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	06/12/16	First issue.

End of Safety Data Sheet.

