Safety Data Sheet

Section 1. Product and Company Identification.

1.1 Model Number; ADB02 v2

1.2 Description; Digital Flow Meter - AdBlue®
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; 01 July 2008

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	35 - 40%	Acute Tox. 4 Acute Tox. 4	H332 H302
Zinc	7440-66-6	10 - 25%	Aquatic Acute 1 Aquatic Chronic 1	H400 H410
Potassium Hydroxide	1310-58-3	5 - 10%	Acute Tox. 4 Skin Corr. 1A	H302 H314
Graphite (natural or synthetic)	7782-42-5 7440-44-0	1 - 5%	Not Classified	-

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

Section 4. First Aid Measures.

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.
Get medical attention.

Skin Contact Remove contaminated clothing.
Wash affected area(s) with soap and water.
Seek medical attention if chemical burn(s) appear or if symptoms persist.

Eye Contact irrigate eyes with water for at least 15 minutes while raising eyelid(s).
Get medical attention.

Ingestion Do not induce vomiting.
Do not give food or drink.
Get medical attention.

Do not induce vomiting.
Do not give food or drink.
Seek medical attention.

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.

5.1. Extinguishing media
Any extinguishing media.
Use extinguishing media that is appropriate for the surrounding area.

5.2. Special hazards arising from the substance or mixture
Move batteries away from a fire incident, if safe to do so.
Cool batteries to reduce the risk of rupture.

5.3. Advice for fire-fighters
Fire Fighters should wear self-contained breathing apparatus and appropriate Personal Protective Equipment.
Thermal degradation may produce hazardous fumes of zinc and manganese; hydrogen gas, caustic vapours of potassium hydroxide and other toxic by-products.

Section 6. Accidental Release Measures.

6.1. Personal precautions, protective equipment and emergency procedures
Wear appropriate protective clothing, see section 8.

6.2. Environmental precautions
Ventilate area.

6.3. Methods and material for containment and cleaning up
Collect in a leak proof container.
Place battery in a sealed bag with an absorbent such as sand, silica, chalk, lime powder or vermiculite.
Rinse contamination with water.
Prevent contaminated water from entering sewers or water courses.

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
Wear appropriate protective clothing, see section 8

7.2. Conditions for safe storage, including any incompatibilities
Store batteries in a well ventilated area.
Do not short circuit a battery. A short circuit causes heating and can lead to ignition of surrounding materials.
To minimize the risk of a short circuit, always store batteries in an appropriate container to prevent contact with conductive materials.
Keep batteries away from children.

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.

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.

(a) Appearance:	Cylindrical battery.
(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.
(l) Vapour density;	No information available.
(m) Relative density;	No information available.
(n) Solubility(ies);	Insoluble.
(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	No information available.
10.3. Possibility of hazardous reactions	Hazardous polymerisation will not occur.
10.4. Conditions to avoid	Do not heat, crush, disassemble, short circuit or recharge.
10.5. Incompatible materials	Contents are incompatible with strong oxidizing agents.
10.6. Hazardous decomposition products	Thermal decomposition may produce hazardous fumes of zinc and manganese, caustic vapours of potassium hydroxide and other toxic by-products.

Section 11. Toxicological Information.

11.1. Information on toxicological effects

The materials that comprise this battery are hermetically sealed.

The potential for exposure to materials is negligible when this battery is used as directed. See Section 7.

Inappropriate handling and / or inappropriate use of this battery may result in release of the materials that are sealed within.

Inhalation, skin contact and eye contact are possible when the battery is opened.

Exposure to internal components and corrosive fumes will cause irritation to the eyes skin and mucous membranes.

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.

12.1. Toxicity	No data available.
12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	No data available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	No data available.
12.6. Other adverse effects	No data available.

Section 13. Disposal Considerations.

13.1. Waste treatment methods

Disposal of the battery must be in accordance with local authority regulations.

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

Do not dispose of batteries with household waste.

Do not dispose of batteries at landfill sites.

Do not incinerate batteries.

Section 14. Transport Information.

ADR. International Carriage of Dangerous Goods by Road.
Special Provision 188.
Cells and batteries offered for carriage are not subject to other provisions of ADR if they are packed in inner packaging's that completely enclose the cell or battery. Cells and batteries shall be protected so as to protect short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to a short circuit. The inner packaging's shall be packed in strong outer packagings.

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 statement "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.
Special provision 188.
Cells and batteries offered for transport are not subject to other provisions of this Code if they are packed in inner packagings that completely enclose the cell or battery. Cells and batteries shall be protected so as to protect short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to a short circuit. The inner packagings shall be packed in strong outer packagings.

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.
H314: Causes severe skin burns and eye damage.
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	06/11/17	First issue.

End of Safety Data Sheet.