Material Safety Data Sheet (MSDS)
Flitecell

Product	Lithium Battery Pack
Type/Model	Flitecell Explore Ti, 50.4V, 40Ah, 2016Wh Flitecell Sport Ti Series 3, 50.4V, 29.4Ah, 1482Wh Flitecell Sport Ti Series 2.2, 50.4V, 29.4Ah, 1482Wh Flitecell Nano Ti, 50.4V, 16Ah, 806Wh MN Flitecell Explore, 50.4V, 40Ah, 2016Wh MN Flitecell Sport, 50.4V, 29.4Ah, 1482Wh MN Flitecell Nano, 50.4V, 16Ah, 806W
Issue Date	2025-01-31
Validity	2025-01-31 – 2025-12-31
Contact	Warwick Fifield

Section 1
Chemical And Company Identification

Product	Lithium Battery Pack
Type/Model	Flitecell Explore Ti, 50.4V, 40Ah, 2016Wh Flitecell Sport Ti Series 3, 50.4V, 29.4Ah, 1482Wh Flitecell Sport Ti Series 2.2, 50.4V, 29.4Ah, 1482Wh Flitecell Nano Ti, 50.4V, 16Ah, 806Wh MN Flitecell Explore, 50.4V, 40Ah, 2016Wh MN Flitecell Sport, 50.4V, 29.4Ah, 1482Wh MN Flitecell Nano, 50.4V, 16Ah, 806W
Usage	Used in Personal Watercraft
Company	Fliteboard Pty Ltd
Address	4/18 Banksia Drive, Byron Bay, New South Wales 2481, Australia
Email	warwick.fifield@fliteboard.com
Emergency Number	+61 2 5118 9888

Section 2
Hazards Identification

Classification

This product, when used as intended, is not considered hazardous by the Regulation (EC) No 1272/2008 (CLP). This product is an article which is a sealed battery and as such does not require an SDS per the Regulation (EC) No 1272/2008 (CLP) unless ruptured. **The hazards indicated are for a ruptured battery.**

Acute toxicity – Oral	Category 3, oral, H301
Skin corrosion/irritation	Category 1A, H314
Serious eye damage/eye irritation	Category 1, H318
Specific target organ toxicity (repeated exposure)	Category 1, H372

Hazard Statements	
H301	Toxic if swallowed
H314	Causes severe skin burns and eye damage
H372	Causes damage to organs through prolonged or repeated exposure

DANGER

GHS05 GHS06 GHS08

This battery product is an article which contains a chemical substance. Safety information is given for exposure to the chemical substance as a solid. Intended use of the product should not result in exposure to the chemical substance. In case of rupture: the above hazards exist.

Precautionary Statements - Prevention	
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response

P301 +P330 +P331	IF SWALLOWED: Rinse mouth. Do NOT induce swallowing
P303 +P361 +P353	IF ON SKIN (or hair): Take off all contaminated clothing. Rinse affected areas with water (or shower).
P305 +P351 +P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing.

Precautionary Statements - Storage

P405	Store leaking battery locked up.

Precautionary Statements - Disposal

P501	Dispose of in accordance with local/regional/national/international regulations.

Hazards not otherwise classified (HNOC)

Not applicable.

Other Information

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Interactions with other chemicals

Consumption of alcoholic beverages may enhance toxic effect.

Section 3
Composition/Information

Ingredient	Molecular formula	CAS Number	Weight
Contains Electrolyte salt and solvents			5-20%
Lithium Hexafluorophosphate	$LiPF_6$	21324-40-3	1-5%
Ethylene Carbonate	$C_3H_4O_3$	96-49-1	5-20%
Propylene Carbonate	$C_4H_6O_3$	108-32-7	
Diethyl Carbonate	$C_5H_{10}O_3$	105-58-8	
Dimethyl Carbonate	$C_3H_6O_3$	616-38-6	
Ethyl Methyl Carbonate	$C_4H_8O_3$	623-53-0	
Polyvinylidene Fluoride	$(C_2H_{82}F_{2)n}$	24937-79-9	<1%
Copper	Cu	7440-50-8	9-18%
Aluminium	Al	7429-90-5	17-27%
Positive Electrode			20-50%
Lithium Cobalt Dioxide	$LiCoO_2$	12190-79-3	20-50%
Manganese	Mn	7439-96-5	
Nickel	Ni	7440-02-0	
Aluminium	Al	7429-90-5	
Negative Electrode			13-18%
Graphite	$C_{24}X_{12}$	7782-42-5	13-18%
Graphite /Acetylene Black	C	1333-86-4	
Steel,Nickel & inert components	-	-	Balance

Section 4
First Aid Measures

Eye Exposure	In case of contact with eyes, flush with large amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
Skin Exposure	If the internal battery materials of an opened battery cell come into contact with skin, immediately flush with plenty of water or soap.
Inhalation Exposure	If vomiting occurs from inhalation, seek immediate medical attention.
Ingestion Exposure	If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Section 5
Fire-Fighting Measures

Danger Characteristic	Exposure to excessive heat can cause venting of the electrolyte. Battery may burst and release hazardous decomposition products when exposed to a fire.
Hazardous Combustion Products	Corrosive and toxic gas may be emitted during a fire.
Fire-Fighting Method	Emergency responders must wear protective clothing and defend against the fire from the upwind side.
	Move the battery product to an open space as soon as possible.
	Spray water on the battery product that is on fire to keep it cool until it is extinguished.
Fire-Fighting Media	Plenty of water or carbon dioxide.

Section 6
Accidental Release Measures

Emergency Treatment	If any of the battery material is released, remove personnel from area until the batteries cool down and fumes dissipate.
	Provide maximum ventilation to clear out hazardous gases and avoid skin and eye contact or inhalation of vapors.
	Remove spilled liquid materials.

Section 7
Handling and Storage

	Handling
1	Do not allow battery terminals to contact each other, or make contact with any other metals.
2	Do not heat the battery. Do not expose the battery to fire. Do not solder directly to the battery. Do not use or leave the battery near fire or heat sources.
3	Do not expose the battery to excessive physical shock or vibration.
4	Do not immerse battery in water.

Handling	
5	Short-circuiting must be avoided. A short circuit will reduce the life of the battery and can lead to ignition of surrounding materials. Physical contact with a short-circuited battery can cause skin burn.
6	The batteries must not be opened, destroyed or incinerated, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container.
7	Do not allow children near the battery unsupervised.
8	Do not connect the battery directly to an electric outlet or cigarette socket in a car.
9	Be sure to use the specified charger for the battery, and follow the charging instructions attentively.
10	Do not use a visibly damaged or deformed battery.

Storage	
1	Store battery in a cool, dry and well-ventilated area (temperature: -10 ~ +30°C, humidity: 45~85%). Do not allow exposure to direct sunlight for long periods. Keep away from fire and heating sources.
2	Ensure the storage area is equipped with the fire fighting media as per section 5.
3	Groups of batteries (>2) should be stored in original packaging or equivalent, according to dangerous goods handling procedures in a non-combustible, well ventilated, sprinkler-protected structure with sufficient clearance between walls and battery carton stacks.

Section 8
Exposure Controls & Personal Protection

Engineering Control	Keep away from heat and open flame. Store in a cool, dry place.
Respiratory Protection	Not necessary under normal conditions of use. Wear the appropriate breathing apparatus suitable for emergency rescue or evacuation situations.
Eye Protection	Not necessary under normal conditions of use. Wear protective glasses if handling a leaking or ruptured battery.
Skin & Body Protection	Not necessary under normal conditions of use. Wear fire proof & gas proof PPE clothing in the case of handling a leaking or ruptured battery.
Hand Protection	Not necessary under normal conditions of use. Wear chemical resistant rubber gloves.

Section 9
Physical & Chemical Properties

Appearance	Silver & Black
Physical State	Solid
Form	Prismatic
Odour	Odourless
Solubility	Insoluble in water

Section 10
Stability & Reactivity

Stability	Stable under normal temperature and pressure.
Reactivity	Explosives, inflammables, strong oxidants and corrosives.
Conditions to Avoid	Fire source, heat source, disassembly, external short circuit, physical damage, deformation, high temperature above 100°C, direct sunlight and high humidity, immersion in water or overcharging.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	Metal oxides, carboxyl compound such as CO, CO_2, etc.

Section 11
Toxicological Information

Acute Toxicity	No Data
Sub-acute and Chronic Toxicity	No Data
Skin irritation or corrosion	No Data
Eye irritation or corrosion	No Data
Skin sensitization	No Data

Respiratory sensitization	No Data
Germ cell mutation	No Data
Reproductive toxicity	No Data
Specific target organ system toxicity - one exposure	No Data
Specific target organ system toxicity - repeated exposure	No Data
Inhalation hazard	No Data
Other effects on the organism	No Data

Section 12
Ecological Information

Acute aquatic toxicity	No Data
Chronic aquatic toxicity	No Data
Durability and degradability	No Data
Potential bioaccumulation	No Data
Other effects on the ecosphere	No Data

Section 13
Disposal Considerations

Appropriate Disposal Methods

The battery should be completely discharged prior to disposal in order to prevent short circuit.

The battery contains recyclable materials, and it is recommended to be recycled.

Refer to national or local regulations before disposal.

Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in national or local regulations of hazardous waste treatment and hazardous waste transportation.

Contact Fliteboard Support for disposal options in your area.

Section 14
Transport Information

UN 3480 Lithium Ion Batteries

	Air	Sea	Road	Rail
Hazard Class	Class 9	Class 9	Class 9	Class 9
Packing group	II	II	II	II
Packing instruction	965 section IA	903	903	903
EmS No.	-	F-A, S-I	-	-

UN 3481 Lithium Ion Batteries packed with equipment

	Air	Sea	Road	Rail
Hazard Class	Class 9	Class 9	Class 9	Class 9
Packing group	II	II	II	II
Packing instruction	966 section I	903	903	903
EmS No.	-	F-A, S-I	-	-

UN 3481 Lithium Ion Batteries contained in equipment

	Air	Sea	Road	Rail
Hazard Class	Class 9	Class 9	Class 9	Class 9
Packing instruction	967 section I	903	903	903
EmS No.	-	F-A, S-I	-	-

Air	Air transportation, according to IATA-DGR 66th Edition (Effective 1 January-31 December 2025)
Sea	Maritime transportation, according to IMO IMDG Code (Edition 42-24)
Road	Road transportation, according to UN ADR-2025
Rail	Rail transportation, according to UN RID-2025

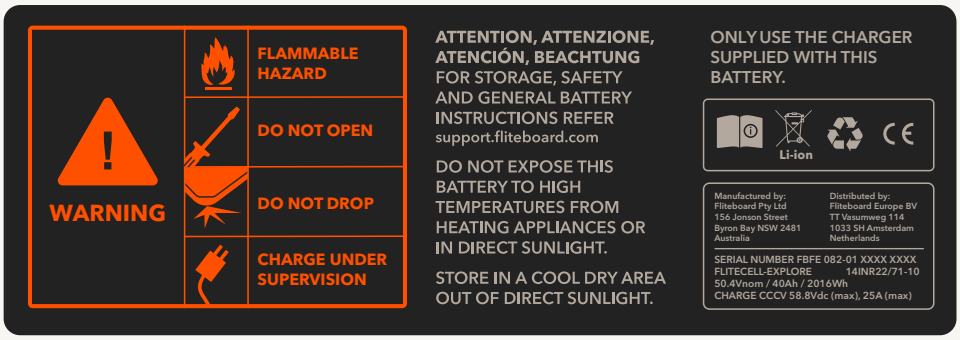
Section 15
Regulatory Information

Dangerous Goods Regulation (DGR)
Recommendations on the Transport of Dangerous Goods Model Regulations
International Maritime Dangerous Goods (IMDG)
Occupational Safety and Health Act (OSHA)
Toxic Substances Control Act (TSCA)
Code of Federal Regulations (CFR)
Technical Instructions for the Safe Transport of Dangerous Goods
California Proposition 65
Superfund Amendments and Reauthorization Act Title III (302/311/312/313) (SARA)
Globally Harmonized System of Classification and Labeling of Chemicals(GHS)
In accordance with all Federal, State and local laws.

Section 16
Additional Information

SDS Standards	GB/T 16483-2008 Safety data sheet for chemical products Content and order of sections
	ISO 11014:2009(E) Safety data sheet for chemical products – Content and order of sections
Assessment Report Date	2024-12-25
Assessment Laboratory	Guangzhou MCM Certification & Testing Co., Ltd. No.13, Zhong San Section, ShiGuang Road, Panyu District, Guangzhou City, Guangdong Province, China.
Other Information	The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty express or implied, with respect to such information, and we assume no liability resulting from its use. Users should conduct their own investigation to determine the suitability of the information for their particular purposes. In no way shall Flite be liable for any claims, losses, or damage of any third party or for lost profits or any special, indirect, consequential or exemplary damages arising from using the above information.

Type/Model	Flitecell Explore, 50.4V, 40Ah, 2016Wh

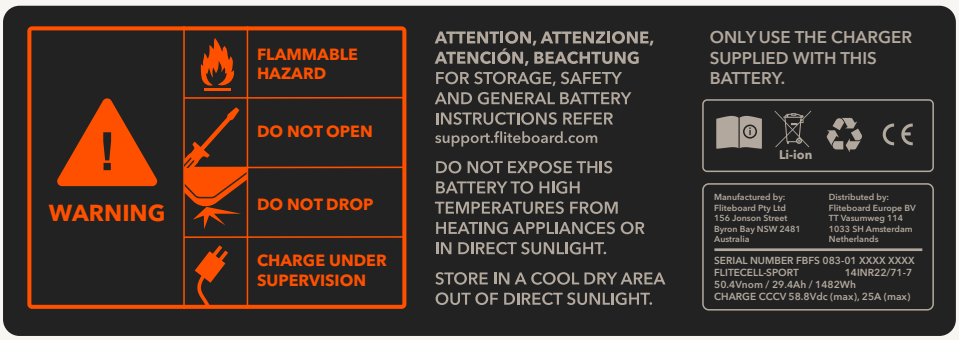


Type/Model

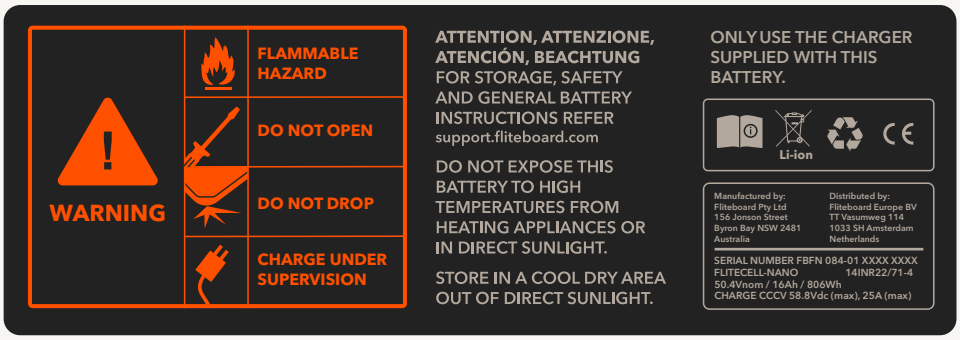
Flitecell Sport, 50.4V, 29.4Ah, 1482Wh

Series 3

Series 2.2

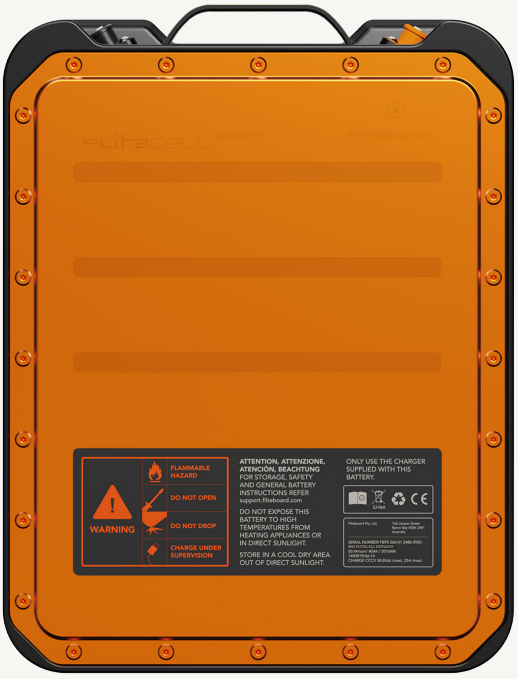


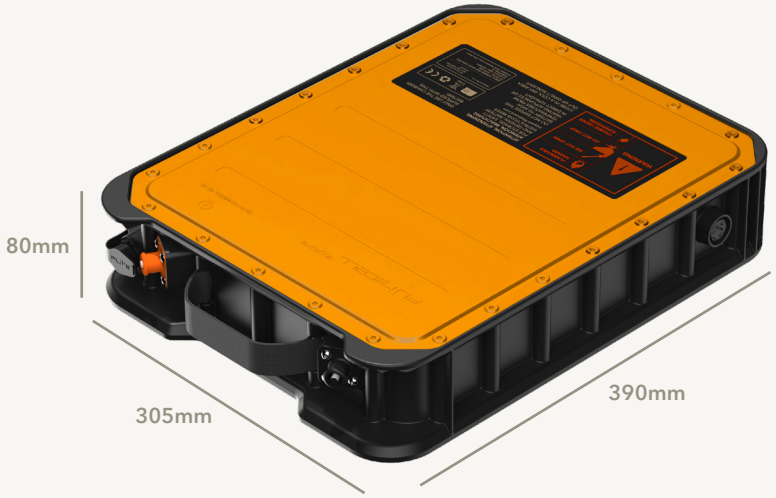
Type/Model	Flitecell Nano, 50.4V, 16Ah, 806Wh

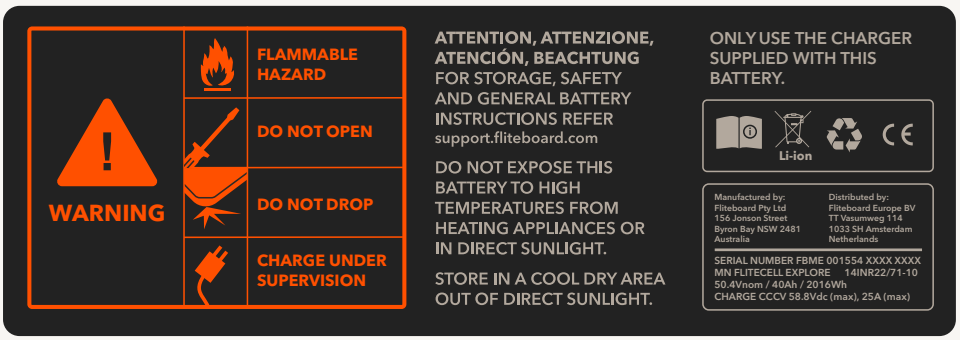


Type/Model

MN Flitecell Explore, 50.4V, 40Ah, 2016Wh

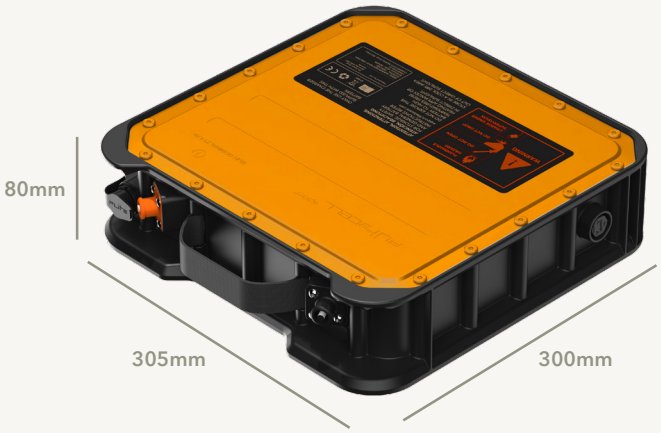






Type/Model	MN Flitecell Sport, 50.4V, 29.4Ah, 1482Wh

Series 3



Type/Model

MN Flitecell Nano, 50.4V, 16Ah, 806Wh

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