



CQ6

HIGH VOLTAGE STORAGE BATTERY



- Single pack 5.99kWh
- Extendable direct min. system 11.98kWh
- Extendable direct max. System 83.86kWh
- 100% Depth of Discharge
- Large temperature tolerance
- CAN communication



HIGH
VOLTAGE



EASY
INSTALLATION



HIGH
EFFICIENCY



EXPANDABLE
SYSTEM



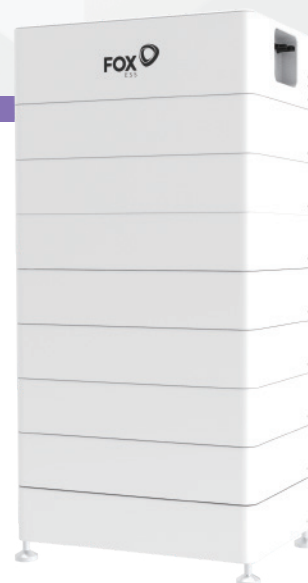
100%
DOD

The CQ6 is a high-performance, scalable battery storage system. The modular design allows for maximum flexibility, making it suitable for a broad range of storage applications.

Additional batteries can be installed in series, allowing for a maximum storage capacity of 83.86kWh. Installation is easy, with a plug and play solution that can save valuable time for installers.



For more information about the Fox ESS range, visit:
www.fox-ess.com



TECHNICAL SPECIFICATIONS

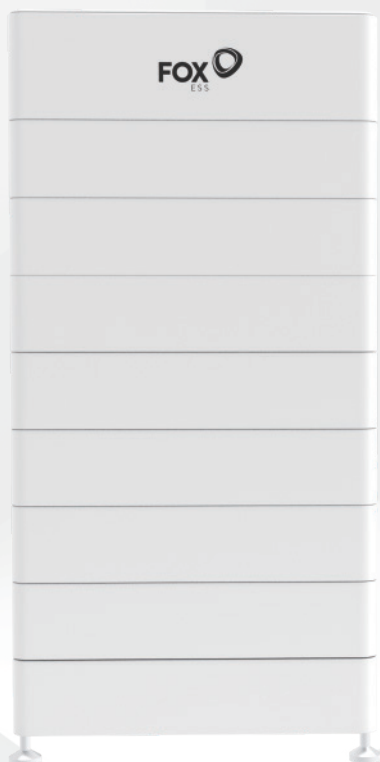
MODEL	-L2	-L3	-L4	-L5	-L6	-L7	CQ6 -L8	-L9	-L10	-L11	-L12	-L13	-L14
ELECTRICAL CHARACTERISTICS													
Battery Type	LFP (LiFePO ₄)												
Battery Module (CQ6-M)	1												
Battery Module (CQ6-S)	1	2	3	4	5	6	7	8	9	10	11	12	13
Nominal Capacity [kWh]	11.98	17.97	23.96	29.95	35.94	41.93	47.92	53.91	59.90	65.89	71.88	77.87	83.86
Usable Capacity [kWh]	11.98	17.97	23.96	29.95	35.94	41.93	47.92	53.91	59.90	65.89	71.88	77.87	83.86
Nominal Voltage [V]	115.2	172.8	230.4	288.0	345.6	403.2	460.8	518.4	576.0	633.6	691.2	748.8	806.4
Rated DC Power [kW]	5.76	8.64	11.52	14.4	17.28	20.16	23.04	25.92	28.80	31.68	34.56	37.44	40.32
Operating Voltage [V]	104.4~131.4	156.6~197.1	208.8~262.8	261.0~328.5	313.2~394.2	365.4~459.9	417.6~525.6	469.8~591.3	522.0~657.0	574.2~722.7	626.4~788.4	678.6~854.1	730.8~919.8
Max. Charge/Discharge Current [A]	50												
Battery Pack Round-Trip Efficiency [%]**	>95												
Depth of Discharge [%]	100												
Communication	CAN												
Display	CQ6-S: LED*1, CQ6-M: LED*6												
Scalability	Max. 14 Modules in Series												
OPERATING CONDITIONS													
Installation Location	Outdoor/ Indoor (Stand)												
Operating Temperature [°C]	Charge: 0 ~ 55 Discharge: -10 ~ 55												
Storage Temperature [°C]	-10 ~ 50												
Cooling Method	Natural Convection												
Humidity [%]	5 ~ 95 (No Condensation)												
Altitude [m]	Max. 2,000												
MECHANICAL CHARACTERISTICS													
Dimensions (W*D*H) [mm]	660*360												
	*420	*575	*730	*885	*1040	*1195	*1350	*1505	*1660	*1815	*1970	*2125	*2280
Weight [kg] (±5%)	105.2	155.2	205.2	255.2	305.2	355.2	405.2	455.2	505.2	555.2	605.2	655.2	705.2
CERTIFICATES													
Safety	IEC 62619												
EMC	IEC 61000-6-1/2/3/4												
Transportation	UN38.3												
Ingress Protection	IP65												
MANUFACTURE													
Country of Manufacture	China												

*1 @ 25°C, 0.3C charging/discharging.



CQ7

HIGH VOLTAGE STORAGE BATTERY



- 6.96kWh capacity
- Scalable to 97.44kWh
- 100% Depth of Discharge
- Large temperature tolerance
- CAN communication



HIGH
VOLTAGE



EASY
INSTALLATION



HIGH
EFFICIENCY



EXPANDABLE
SYSTEM



100%
DOD

The CQ7 is a high-performance, scalable battery storage system. The modular design allows for maximum flexibility, making it suitable for a broad range of storage applications.

Additional batteries can be installed in series, allowing for a maximum storage capacity of 97.44kWh. Installation is easy, with a plug and play solution that can save valuable time for installers.



For more information about the Fox ESS range, visit:
www.fox-ess.com



TECHNICAL SPECIFICATIONS

MODEL	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7
	-L2	-L3	-L4	-L5	-L6	-L7	-L8	-L9	-L10	-L11	-L12	-L13	-L14
	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7	CQ7
	-L2 (w)	-L3 (w)	-L4 (w)	-L5 (w)	-L6 (w)	-L7 (w)	-L8 (w)	-L9 (w)	-L10 (w)	-L11 (w)	-L12 (w)	-L13 (w)	-L14 (w)
ELECTRICAL CHARACTERISTICS													
Battery Type	LFP (LiFePO ₄)												
Battery Module [CQ7-M/CQ7-M (w)]*	1												
Battery Module [CQ7-S/CQ7-S (w)]*	1	2	3	4	5	6	7	8	9	10	11	12	13
Nominal Capacity [kWh]	13.92	20.88	27.84	34.80	41.76	48.72	55.68	62.64	69.60	76.56	83.52	90.48	97.44
Usable Capacity [kWh]	13.92	20.88	27.84	34.80	41.76	48.72	55.68	62.64	69.60	76.56	83.52	90.48	97.44
Nominal Voltage [V]	115.2	172.8	230.4	288.0	345.6	403.2	460.8	518.4	576.0	633.6	691.2	748.8	806.4
Nominal Power [kW]	9.22	13.82	18.43	23.04	27.65	32.26	36.86	41.47	46.08	50.69	55.30	59.90	64.51
Operating Voltage [V]	104.4 ~ 919.8												
Max. Charge/Discharge Current [A] ^{*1}	80												
Battery Pack Round-Trip Efficiency [%] ^{*2}	>95												
Depth of Discharge [%]	100												
Communication	CAN												
Display	CQ7-S/CQ7-S (w): LED*1, CQ7-M/CQ7-M (w): LED*6												
Scalability	Max. 14 Modules in Series												
OPERATING CONDITIONS													
Installation Location	Outdoor/ Indoor (Stand)												
Operating Temperature [°C]	Charge: 0 ~ 55, Discharge: -10 ~ 55												
Operating Temperature [°C] (warm up function on, optional) ^{*3}	Charge: -25 ~ 55, Discharge: -25 ~ 55												
Storage Temperature [°C]	-10 ~ 50												
Cooling Method	Natural Convection												
Humidity [%]	5 ~ 95 (No Condensation)												
Altitude [m]	Max. 3,000												
PROTECTION													
Fire Protection Function	YES												
MECHANICAL CHARACTERISTICS													
Dimensions (W*D*H) [mm]	660*360												
	*420	*575	*730	*885	*1040	*1195	*1350	*1505	*1660	*1815	*1970	*2125	*2280
Weight [kg] (±5%)	105.5	156.0	206.5	257.0	307.5	358.0	408.5	459.0	509.5	560.0	610.5	661.0	711.5
CERTIFICATES													
Safety	IEC 62619												
EMC	IEC 61000-6-1/2/3/4												
Transportation	UN38.3												
Ingress Protection	IP65												
MANUFACTURE													
Country of Manufacture	China												

*CQ7-S/CQ7-S (w) is the battery module, and CQ7-M/CQ7-M (w) includes system controller and battery module.

CQ7-M/CQ7-M (w) contains the controller of the entire system, so each system must have 1 CQ7-M/CQ7-M (w).

Ensure that each system has only 1 CQ7-M/CQ7-M (w) and a maximum of 13 CQ7-S/CQ7-S (w).

*1, The current is affected by temperature, cell voltage and SOC.

*2, @25°C, 0.3C charging/discharging.

*3, Warm up function is available for CQ7-L2 (w), CQ7-L3 (w), CQ7-L4 (w), CQ7-L5 (w), CQ7-L6 (w), CQ7-L7 (w), CQ7-L8 (w), CQ7-L9 (w), CQ7-L10 (w), CQ7-L11 (w), CQ7-L12 (w), CQ7-L13 (w), CQ7-L14 (w).

V 1.2 | 2026/05/09



EQ4800

HIGH VOLTAGE STORAGE BATTERY



- 4.66kWh capacity
- Scalable to 41.93kWh
- 100% Depth of Discharge
- Large temperature tolerance
- CAN communication



HIGH
VOLTAGE



EASY
INSTALLATION



HIGH
EFFICIENCY



EXPANDABLE
SYSTEM



100%
DOD

The EQ is a high-performance, scalable battery storage system. The modular design allows for maximum flexibility, making it suitable for a broad range of storage applications.

Additional batteries can be installed in series, allowing for a maximum storage capacity of 41.93kWh. Installation is easy, with a plug and play solution that can save valuable time for installers.



For more information about the Fox ESS range, visit:
www.fox-ess.com



TECHNICAL SPECIFICATIONS

MODEL	EQ4800 -L2	EQ4800 -L3	EQ4800 -L4	EQ4800 -L5	EQ4800 -L6	EQ4800 -L7	EQ4800 -L8	EQ4800 -L9
ELECTRICAL CHARACTERISTICS								
Battery Type	LFP (LiFePO ₄)							
Battery Module	1*EQ4800-M 1*EQ4800-S	1*EQ4800-M 2*EQ4800-S	1*EQ4800-M 3*EQ4800-S	1*EQ4800-M 4*EQ4800-S	1*EQ4800-M 5*EQ4800-S	1*EQ4800-M 6*EQ4800-S	1*EQ4800-M 7*EQ4800-S	1*EQ4800-M 8*EQ4800-S
Nominal Voltage [V]	89.6	134.4	179.2	224.0	268.8	313.6	358.4	403.2
Nominal Power [kW]	4.48	6.72	8.96	11.20	13.44	15.68	17.92	20.16
Nominal Energy [kWh]	9.32	13.98	18.64	23.30	27.96	32.61	37.27	41.93
Usable Capacity [kWh]	9.32	13.98	18.64	23.30	27.96	32.61	37.27	41.93
Operating Voltage [V]	81.2 ~ 103.0	121.8 ~ 154.5	162.4 ~ 206.0	203.0 ~ 257.6	243.6 ~ 309.1	284.2 ~ 360.6	324.8 ~ 412.2	365.4 ~ 463.7
Normal Capacity [Ah]	104							
Recommend Charge/Discharge Current [A]	30							
Max.Charge/Discharge Current [A] ^{*2}	50							
Peak Discharge Current(60S) [A]	65							
Battery Pack Round-Trip Efficiency [%] ^{*1}	>95							
Depth Of Discharge [%]	100							
Cycle Life ^{*1}	≥6000							
Communication	CAN							
Display	EQ4800-S: LED*1, EQ4800-M: LED*6							
Scalability	Max. 9 Modules in Series							
OPERATING CONDITIONS								
Installation Location	Outdoor/ Indoor (Stand)							
Operating Temperature [°C]	Charge: 0 ~ 55 Discharge: -10 ~ 55							
Storage Temperature [°C]	-10 ~ 35							
Cooling method	Natural Convection							
Humidity [%]	5 ~ 95 (No Condensing)							
Altitude [m]	Max. 3,000							
MECHANICAL CHARACTERISTICS								
Dimensions (W*H*D) [mm]	570*386*380	570*524*380	570*662*380	570*800*380	570*938*380	570*1076*380	570*1214*380	570*1352*380
Weight [kg]	83.5	122.5	161.5	200.5	239.5	278.5	317.5	356.5
CERTIFICATES								
Safety	IEC 62619							
EMC	EN IEC 61000-6-1/2/3/4							
Transportation	UN38.3							
Ingress Protection	IP65							
WARRANTY								
Standard Warranty [year] ^{**}	10 ^{*3}							
MANUFACTURE								
Country of Origin	China							

*1, @25°C, @70% SOH, @90% DOD, 0.3C charging/discharging.

*2, The current is affected by temperature ,cell voltage and SOC.

*3, Refer to Fox ESS Battery Warranty Terms and Conditions.





Fox ESS HV Battery Warranty Policy for Australia and New Zealand

i. Scope of Warranty

Fox ESS provides the following limited warranty for its battery products (herein referred to as the Product(s) unless explicitly stated otherwise) produced/produced by Fox. Fox ESS under its own discretion has the right to decline the replacement of the device if the terms and conditions on the Policy is breached. This Fox ESS Warranty Policy (herein referred to as the Policy) is applicable in Australia where the product is sold through recognized Fox partners. The Product(s) included in this Policy are:

HV2600, ECS2900-H Series (CM2900, CS2900), ECS4800-H Series (CM4800, CS4800), EQ4800-L Series (EQ4800-M, EQ4800-S), EP5, EP11, CQ6 (CQ6-M, CQ6-S), EP12 Plus

CM2900 and CS2900 are the battery module of ECS2900-Hx(x=2/3/4/5/6/7) CM4800 and CS4800 are the battery module of ECS4800-Hx(x=2/3/4/5/6/7) EQ4800-M and EQ4800-S are the battery module of EQ4800-Lx(x=2/3/4/5/6/7/8/9), CQ6-M and CQ6-S are the battery module of CQ6-Lx(x=1/2/3/4/5/6/7/8/9/10/11/12/13/14)

Important:

Please note, this warranty policy covers Fox Products as specified herein. Inverters and charge controllers (including those contained with an all-in-one storage product) are covered under a separate warranty policy. This warranty is limited to the Fox battery module range only and does not cover any external or ancillary parts. Any ancillary parts or add-on devices supplied by Fox may be covered by a separate warranty policy.

This Policy shall not be held as a guarantee of the product durability, nor does it include any product ability.

This Policy is limited only to the parties listed as per section 2.

ii. Contracting Parties

This Policy is only provided to the original purchaser of the product from Fox ESS (Purchaser), where the Purchaser is a distributor, solar retailer or an accredited electrician (Installer), who on-supplies the product to another party, or to that other- party (End-User) where the product is installed.

1. Warranty Period

For HV2600, ECS2900-H, ECS4800-H, EQ4800-L, EP5, EP11, EP12 Plus the Standard Performance Warranty for the Products is valid for a period of 10 years, One Hundred and Twenty (120) months from the date of installation, but no more than One Hundred and Twenty-Five (125) months from the date of manufacture of the Product (whichever comes first). (the "Term of Performance Warranty").

For CQ6, The Standard Performance Warranty for the Products is valid for a period of 12 years, One Hundred and forty-four (144) months from the date of installation, but no more than One Hundred and fifty (150) months from the date of manufacture of the Product (whichever comes first). (the "Term of Performance Warranty").

Preconditions of the Warranty:

The Product must be successfully registered and connected to the Fox ESS website when commissioning the battery system.

<https://warranty.foxesscloud.com>

iii. Scope of Warranty

Fox ESS liability under this Policy shall be limited to replacement, repair, refund and compensation. Replaced or repaired Products Fox ESS liability under this Policy shall be limited to replacement, repair, refund and compensation. Replaced or repaired Products shall be warranted for the remainder of the original Term of Performance Warranty. In any event, the replacement shall not justify the renewal of the Term of Performance Warranty.

iv. Performance Warranty Terms

HV2600, ECS2900-H, ECS4800-H, EQ4800-L, EP5, EP11, EP12 Plus: Fox ESS warrants and represents that the Product retains at least 70% of Nominal Energy or Usable Energy for the either 10 years after the date of the initial installation or for a minimum Energy Throughput as per the table below (whichever comes first) when the battery system is operated under a normal use according to the specifications outlined in the Product manual.

CQ6: Fox ESS warrants and represents that the Product retains at least 70% of Nominal Energy or Usable Energy for the either 12 years after the date of the initial installation or for a minimum Energy Throughput as per the table below (whichever comes first) when the battery system is operated under a normal use according to the specifications outlined in the Product manual.

The term "Nominal Energy" herein means the initially rated capacity of the Products as printed on the label of the Products. The precondition of the valid 10-year Performance Warranty shall be as follows:

- The ambient temperature during the operation of the Products shall not fall below -10°C (14°F) or exceed 50°C (122°F)
- The energy throughput for (10) years of HV2600, ECS2900-H, ECS4800-H, EQ4800-L, EP5, EP11, EP12 Plus and (12) years of CQ6 is not less than values in table below:

Product	Nominal Energy	Energy Throughput
HV2600(10 years)	2.56kWh	10.8MWh
CM2900/CS2900(10 years)	2.88kWh	12.15MWh
CM4800/CS4800(10 years)	4.66kWh	19.66MWh
EQ4800-M/EQ4800-S (10 years)	4.66kWh	19.66MWh
EP5(10 years)	5.18 kWh	19.2MWh
EP11(10 years)	10.36 kWh	38.4MWh
EP12 Plus (10 years)	11.52kWh	42.6MWh

Product	Nominal Energy	Energy Throughput
ECS2900-H2(10 years)	5.76kWh	24.3MWh
ECS2900-H3(10 years)	8.64kWh	36.45MWh
ECS2900-H4(10 years)	11.52kWh	48.6MWh
ECS2900-H5(10 years)	14.4kWh	60.75MWh
ECS2900-H6(10 years)	17.28kWh	72.9MWh
ECS2900-H7(10 years)	20.16kWh	85.05MWh
ECS4800-H2(10 years)	9.32kWh	39.32MWh
ECS4800-H3(10 years)	13.98kWh	58.98MWh

ECS4800-H4(10 years)	18.64kWh	78.64MWh
ECS4800-H5(10 years)	23.3kWh	98.3MWh
ECS4800-H6(10 years)	27.96kWh	117.96MWh
ECS4800-H7(10 years)	32.62kWh	137.62MWh
EQ4800-L2(10 years)	9.32kWh	39.32MWh
EQ4800-L3(10 years)	13.98kWh	58.98MWh
EQ4800-L4(10 years)	18.64kWh	78.64MWh
EQ4800-L5(10 years)	23.3kWh	98.3MWh
EQ4800-L6(10 years)	27.96kWh	117.96MWh
EQ4800-L7(10 years)	32.62kWh	137.62MWh
EQ4800-L8(10 years)	37.28kWh	157.28MWh
EQ4800-L9(10 years)	41.94kWh	176.94MWh

Product	Nominal Energy	Energy Throughput
CQ6-L2(12 years)	11.96kwh	60.28MWh
CQ6-L3(12 years)	17.94kwh	90.42MWh
CQ6-L4(12 years)	23.92kwh	120.56MWh
CQ6-L5(12 years)	29.9kwh	150.7MWh
CQ6-L6(12 years)	35.88kwh	180.84MWh
CQ6-L7(12 years)	41.86kwh	210.98MWh
CQ6-L8(12 years)	47.84kwh	240.12MWh
CQ6-L9(12 years)	53.82kwh	271.26MWh
CQ6-L10(12 years)	59.8kwh	301.4MWh
CQ6-L11(12 years)	65.78kwh	331.54MWh
CQ6-L12(12 years)	71.76kwh	361.68MWh
CQ6-L13(12 years)	77.74kwh	391.82MWh
CQ6-L14(12 years)	83.72kwh	421.96MWh

- Capacity Measurement conditions:
 - v. Ambient temperature: 25~ 30°C (77~86°F)
 - vi. Initial battery temperature from BMS: 25~30°C
 - vii. Current and voltage measurement at battery DCside
 - viii. Recommended Charging/discharging condition
- Charge: 0.6C CQ/CV, (Constant voltage 58.4V (HV2600), 65.7V (ECS2900), 51.1V (ECS4800), Cut-off current (0.05C) Discharge: (0.5C) CC/CV, Cut-off voltage 46.4V (HV2600), 52.5V (ECS2900), 40.6V (ECS4800), 40.6V (EQ4800), 52.2V (CQ6)

vi. Policy Claim Eligibility

The only person(s) eligible to claim warranty under this contact are the Installer and Fox ESS authorized personnel. If the Installer has gone into administration or insolvency or if the site is in a remote area, the End-User/Installer at their discretion and expense may appoint a Local Installer to carry out the functions of the original Installer. Eligibility of a Service Rebate is in accordance with sections 5 and 6 of this Policy.

vii. Limited Liability

In the event of damages related to the causes listed below, no warranty claims will be acknowledged or accepted. Claims that relate to defects that are caused by the following factors are not covered by Fox's warranty obligations:

- Inadequate ventilation and circulation resulting in minimized cooling and natural air flow;
- Improper installation of the Product(s) and/or installation performed by a non-accredited installer;
- Improper or non-compliant use, installation, commissioning, start up or operation;
- Improper wiring of the Product causing arching or damage of the Product or its parts;
- Improper use or misuse of the Product(s) by the Installer or End-User e.g. damage resulting from dropping the Product during installation;
- Use of improper connectors, e.g. where the Installer has installed the Product with different brand and/or model of connectors other than those supplied with the Product;
- Damage of the Product(s) that originate from other parts of the system;
- Force majeure (storm damage, lightning strike, overvoltage, fire, thunderstorm, flooding etc.)
- Damage that occurred during the transportation of the Product(s);
- Flaws that do not adversely affect the proper functioning of the product(s), e.g. cosmetic issues, wear and tear;
- Unauthorized repair and reinstallation of the Product(s);
- Where the Installer has not followed the warranty claim process and detailed in section 9, and/or proper evidence of the fault and/or test carried out on site has not been provided to Fox;
- Failure to follow the safety regulations and/or operating instructions in respect to the Product(s) operating manual.

viii. Product Replacement and Compensation

In the event the Products are not available in the market anymore, Fox, at its option, may replace it with an alternative product with equivalent functions and performance.

ix. Exclusions

This Policy does not cover the components that were not initially sold by Fox ESS as a part of the system. This also includes components of the system sourced by the End-User or Installer that may be of the same manufacturer and/or model as the one provided by Fox.

x. Registration

It is recommended that all Products are registered in order that they qualify under the terms of this Policy. Warranties should be registered within thirty-six (36) months of installation, however it is recommended that they are registered no more than six (6) weeks

following the successful installation and commissioning of the Product where possible. The information required at the point of registration via the Fox ESS website is as follows:

- Product model
- Product serial number
- Installation date
- Customer name
- Installation postal/zip code
- Full installation address



7. Name of installation company

xi. Warranty Claim Process

It is the duty of the Installer to contact Fox ESS in the event of a fault with the following information.

Name of the Installer:

Product Model No:

Fault Code:

Fault Details:

Contact Details:

Fox ESS may ask for additional details depending on the fault conditions. Fox ESS will run tests on the product and may advise the Installer to take photos for verification purposes. The Installer is required to submit an RMA Form with the evidence and any additional information requested by Fox. Once the form is received a unique ticket number is issued which will be used for tracking the progress of the claim. Fox ESS is obliged to approve and dispatch the Product within 3 working days subject to availability of the product. Once the replacement is completed, the Installer is obliged to arrange the shipping of the faulty product to Fox ESS within a maximum of thirty (30) days of the replacement being received. Failure to do so will forfeit eligibility for the service rebate outlined in section 5. If an allegedly faulty Product is returned to Fox ESS pursuant to this Policy, and is found by Fox ESS to be free of defects that would qualify it for replacement under this policy, or due to limited liability as stated in section 6, Fox ESS will apply a flat-rate inspection charge for each Product and/or will seek to recover the full costs of the replacement Product.

Note: Any Product replacement has to be approved by Fox ESS in all cases. Any replacement of the Product issued without the consent of Fox ESS will invalidate an associated claim.

xii. Further Rights at Law

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Contact Information

Foxess Co., Ltd
No. 939, Jinhai Third Road, New Airport Industry Area, Longwan District,
Wenzhou City, Zhejiang Province, China
Email: service@fox-ess.com
www.fox-ess.com

Australian Importer:
FoxESS Australia Pty Ltd
53 Willow Avenue, Springvale VIC 3171, Australia
Email: service.au@fox-ess.com
Tel: +61 466 322 500
au.fox-ess.com

Design Report of Safety Data Sheet

正本/ORIGINAL

*Product Name:	Li-ion Battery Module EQ4800-M
*Applicant:	FOXESS CO., LTD.
Supplier:	FOXESS CO., LTD.
Importer:	FOXESS AUSTRALIA PTY LTD
*Composition of the product:	Ferrous Lithium Phosphate(CAS: 15365-14-7): 35%; Graphite(CAS: 7782-42-5): 18%; Aluminium(CAS: 7429-90-5): 15%; Copper(CAS: 7440-50-8): 7%; Ethyl methyl carbonate(CAS: 623-53-0): 6%; Details on the next page
Warranty of Design:	Australian WHS (Work Health and Safety Regulations) and ADG (Australian Code for the Transport of Dangerous Goods by Road & Rail)
*Information materials:	HGBZ2402YL3《Application》、P120997《Declaration of consistency of components of the sample submitted for inspection》、P120997《UN 38.3》、P120997-Product Picture
Design Result of SDS please see next page.	
Designer: 叶江林	Auditor: 江帆
Approver: 戎霄	
常州合规思远产品安全技术服务有限公司 Changzhou Hegui Siyuan Products Safety Technology Service Co., Ltd.	



Contd. of Prev. page: Complete sample component information.

*Composition of the product:	Ferrous Lithium Phosphate(CAS: 15365-14-7): 35%; Graphite(CAS: 7782-42-5): 18%; Aluminum(CAS: 7429-90-5): 15%; Copper(CAS: 7440-50-8): 7%; Ethyl methyl carbonate(CAS: 623-53-0): 6%; Dimethyl carbonate(CAS: 616-38-6): 6%; Ethylene carbonate(CAS: 96-49-1): 6%; Polyethylene(CAS: 9002-88-4): 4%; Carbon(CAS: 7440-44-0): 1%; Poly(1,1-difluoroethylene)(CAS: 24937-79-9): 1%; Polymerized Styrene Butadiene Rubber(CAS: 9003-55-8): 0.7%; Carboxymethylcellulose Sodium(CAS: 9004-32-4): 0.3%
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Terms of the Using of the Report

1. According to the needs of issuing the report, the company requires the client to provide true and complete samples and data (see the report tape ★ for details). The Company will not bear any consequences caused by the wrong information provided by the Client. If the chemical information, authoritative database and relevant policy changes submitted by the client affect the conclusions of this report, this report will automatically become invalid. Unless otherwise specified, the data in this report are only responsible for the samples submitted for inspection, and the accuracy of sample composition information is the responsibility of the client. The hazard characteristics, transportation information and emergency measures of samples need to focus on the corresponding parts of this report.
2. The data source of this report is based on the relevant materials and information submitted by the client, the test results of international authoritative databases, laboratories and the current relevant knowledge of the company. We try our best to ensure the correctness of all information during the audit. However, due to the diversity of information sources and the limitations of the Company's knowledge, users of this report should make further judgments on the reasonableness of relevant information based on the purpose of use.
3. This report will be effective only after it is signed by the inspector, approver and stamped by our company.
4. Our company guarantees the objectivity and fairness of this report, and carries out confidentiality obligations on business secrets such as business information, technical documents and so on.
5. This report does not consider the differences between countries and operators.
6. The partly duplicating of this report is prohibited without the written approver.
7. The report is invalid when anything of the following happens-illegal transfer, embezzlement, imposture, modification or tampering in any media form.
8. This report is valid before the implementation of the new version of the standard.



Safety Data Sheet

Li-ion Battery Module EQ4800-M

Version : V2.0.0.1
Report No. : HGBZ2402YL31
Creation Date : 2024/02/29
Revision Date : -

*According to WHS and ADG requirements

1 Identification

Product identifier

Product Name	Li-ion Battery Module EQ4800-M
Product Model	EQ4800-M
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable
Product Picture	

Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier

Applicant Name	FOXESS CO., LTD.
Applicant Address	No.939, Jinhai Third Road, New Airport Industry Area, Longwan District, Wenzhou, Zhejiang, China
Applicant Post Code	325025
Applicant Telephone	0510-68092998
Applicant Fax	—
Applicant E-mail	foxrd@fox-ess.com
Supplier Name	FOXESS CO., LTD.
Supplier Address	No.939, Jinhai Third Road, New Airport Industry Area, Longwan District, Wenzhou, Zhejiang, China
Supplier Post Code	325025
Supplier Telephone	0510-68092998
Supplier Fax	—
Supplier E-mail	foxrd@fox-ess.com

Importer Name	FOXESS AUSTRALIA PTY LTD
Importer Address	Unit 2, 38-40 PROSPECT STREET, BOX HILL, VIC
Importer Post Code	3128
Importer Telephone	+61 411 834 749
Importer Fax	—
Importer E-mail	david@fox-ess.com

Emergency phone number

Emergency phone number	0510-68092998
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2 Hazard(s) identification

Hazard classification according to WHS

The product meets the definition of "article". In the Globally Harmonized Chemical Classification and Labeling System (GHS), the "articles" defined by the US Occupational Safety and Health Administration "Hazard Communication Standard" (29 CFR 1910.1200) or similar definitions do not fall within the scope of this system. According to WHS, not classified as a hazardous chemical.

Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable
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Precautionary statements

◆ Prevention

Prevention	Not applicable
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◆ Response

Response	Not applicable
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◆ Storage

Storage	Not applicable
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◆ Disposal

Disposal	Not applicable
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Hazard description

◆ Physical and chemical hazards

	When the outer enclosure and safety circuits have been compromised or have been significantly damaged, it is likely to contain substantial electrical charge and can cause injury or death if mishandled. Mechanical damage can lead to danger. Battery products exposed to high temperature conditions, may produce heat out of control, causing fire.
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◆ Health hazards

Inhaled	According to the material form, it is not the normal way of contacting.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	No harm in general situation.
Eye	This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

Please refer to 12th chapter of SDS.

3 Composition/information on ingredients

Substance/mixture

Mixture

Component	CAS No.	EC No.	Concentration (Volume or weight percent, %)
Ferrous Lithium Phosphate	15365-14-7	604-917-2	35
Graphite	7782-42-5	231-955-3	18
Aluminium	7429-90-5	231-072-3	15
Copper	7440-50-8	231-159-6	7
Ethyl methyl carbonate	623-53-0	613-014-2	6
Dimethyl carbonate	616-38-6	210-478-4	6
Ethylene carbonate	96-49-1	202-510-0	6
Polyethylene	9002-88-4	618-339-3	4
Carbon	7440-44-0	231-153-3	1
Poly(1,1-difluoroethylene)	24937-79-9	607-458-6	1
Polymerized Styrene Butadiene Rubber	9003-55-8	618-370-2	0.7
Carboxymethylcellulose Sodium	9004-32-4	618-378-6	0.3

4 First-aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	No harm in general situation. First aid is not needed.
Ingestion	Never give anything by mouth to an unconscious person. Call a physician immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms/effects, acute and delayed

1 Please see section 11.

Indication of any immediate medical attention and special treatment needed

1 Treat symptomatically.

2 Symptoms may be delayed.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Please use lithium battery fire extinguisher.
Unsuitable extinguishing media	No information available.

Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
2	May expansion or decompose explosively when heated or involved in fire.

Special protective equipment and precautions for fire-fighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

1	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
2	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3	Use personal protective equipment, do not breathe dust/fume.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

1	Cut off the source of the leak as much as possible.
2	Keep leaks in a ventilated place.
3	Isolation of contaminated areas and restrictions on access.
4	It is recommended that emergency personnel wear dust masks.
5	Collect the spill with a clean shovel and place it in a clean, dry, loosely closed container and move the container away from the leak.
6	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7 Handling and storage

Precautions for safe handling

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.
4	Keep away from heat/sparks/open flames/ hot surfaces.

Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
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2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

8 Exposure controls/personal protection

Control parameters

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
Graphite	USA - OSHA	-	15	-	-
	South Korea	-	2	-	-
	Ireland	-	10	-	-
	Germany (DFG)	-	4	-	-
	Denmark	-	2.5	-	5
	Australia	-	3 (4)	-	-
	USA-ACGIH	-	2	-	-
Aluminium	USA - OSHA	-	15	-	-
	South Korea	-	10	-	-
	Ireland	-	1	-	-
	Germany (DFG)	-	4	-	-
	Denmark	-	5	-	10
	Australia	-	10	-	-
	USA-ACGIH	-	1	-	-
Copper	The Netherlands	-	0.1	-	-
	Poland	-	0.2	-	-
	Latvia	-	0.5	-	1
	Germany (DFG)	-	0.01	-	0.02

◆ Biological limit values

Biological limit values	No relevant regulations
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◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300 series standard Determination of toxic substances in workplace air.

Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Set up emergency exit and necessary risk-elimination area.
4	Handle in accordance with good industrial hygiene and safety practice.

Personal protection equipment

General requirement	
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapour or dust, tightly fitting safety goggles.
Hand protection	In general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, wear dust proof mask or gas defence mask.
Skin and body protection	In general situation, skin and body protection are not needed.

9 Physical and chemical properties

Physical and chemical properties

Physical state	Solid (see picture for details)
Colour	No information available
Odor	No special odor
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	No information available
Flash point(Closed cup, °C)	Not applicable
Evaporation rate	Not applicable
Flammability	Not flammable
Upper/lower explosive limits[% (v/v)]	Upper limit : No information available ; Lower limit : No information available
Vapor pressure	Not applicable
Relative vapour density(Air = 1)	Not applicable
Relative density(Water=1)	No information available
Solubility	Insoluble in water
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Kinematic viscosity	Not applicable
Particle characteristics	No information available

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	No information available.
Conditions to avoid	Incompatible materials, heat, flame and spark.

Incompatible materials	Oxidants, halogen, interhalogen and mercury.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Acute toxicity

Component	LD ₅₀ (oral)	LD ₅₀ (dermal)	LC ₅₀ (inhalation,4h)
Carboxymethylcellulose Sodium	27000mg/kg(Rat)	> 2000mg/kg(Rabbit)	> 5.8mg/L(Rat)
Dimethyl carbonate	13000mg/kg(Rat)	> 5000mg/kg(Rabbit)	No information available
Ethylene carbonate	10000mg/kg(Rat)	> 3000mg/kg(Rabbit)	No information available

Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
Ferrous Lithium Phosphate	Not Listed	Not Listed
Graphite	Not Listed	Not Listed
Aluminium	Not Listed	Not Listed
Copper	Not Listed	Not Listed
Ethyl methyl carbonate	Not Listed	Not Listed
Dimethyl carbonate	Not Listed	Not Listed
Ethylene carbonate	Not Listed	Not Listed
Polyethylene	Category 3	Not Listed
Carbon	Not Listed	Not Listed
Poly(1,1-difluoroethylene)	Not Listed	Not Listed
Polymerized Styrene Butadiene Rubber	Category 3	Not Listed
Carboxymethylcellulose Sodium	Not Listed	Not Listed

Others

Li-ion Battery Module EQ4800-M	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met

12 Ecological information

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae
Copper	LC ₅₀ : 0.665mg/L (96h)(Fish)	EC ₅₀ : 0.02mg/L (48h)(Daphnia magna)	ErC ₅₀ : 7.9mg/L (96h)(Freshwater algae)
Carboxymethylcellulose Sodium	No information available	EC ₅₀ : 87.3mg/L (48h)(Daphnia magna)	No information available
Dimethyl carbonate	LC ₅₀ : ≥ 100mg/L (96h)(Fresh water fish)	EC ₅₀ : > 100mg/L (48h)(Daphnia magna)	ErC ₅₀ : > 57.29mg/L (72h)(Freshwater algae)
Graphite	LC ₅₀ : 100mg/L (96h)(Fresh water fish)	No information available	No information available
Ferrous Lithium Phosphate	LC ₅₀ : > 28mg/L (96h)(Fresh water fish)	EC ₅₀ : > 28mg/L (48h)(Aquatic invertebrates)	ErC ₅₀ : > 24mg/L (72h)(Algae)
Ethyl methyl carbonate	LC ₅₀ : > 100mg/L (96h)(Fresh water fish)	EC ₅₀ : > 100mg/L (48h)(Daphnia magna)	ErC ₅₀ : > 62mg/L (72h)(Algae)
Ethylene carbonate	LC ₅₀ : > 100mg/L (96h)(Fish)	EC ₅₀ : > 100mg/L (48h)(Ceriodaphnia dubia)	ErC ₅₀ : > 100mg/L (72h)(Algae)
Aluminium	LC ₅₀ : 1.55mg/L (96h)(Fish)	No information available	No information available

Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
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Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Graphite	Low	Low
Ethyl methyl carbonate	High	High
Ethylene carbonate	High	High
Polyethylene	Low	Low

Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Graphite	Low	Log Kow=0.5294
Ethyl methyl carbonate	Low	Log Kow=0.7247
Ethylene carbonate	Low	Log Kow=-0.3388
Polyethylene	Low	Log Kow=1.2658

Mobility in soil

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Graphite	Low	23.74
Ethyl methyl carbonate	Low	15.22
Ethylene carbonate	Low	9.168
Polyethylene	Low	14.3

Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Ferrous Lithium Phosphate	No information available
Graphite	Not applicable
Aluminium	Not applicable
Copper	Not applicable
Ethyl methyl carbonate	Not PBT/vPvB
Dimethyl carbonate	Not PBT/vPvB
Ethylene carbonate	Not PBT/vPvB
Polyethylene	No information available
Carbon	No information available
Poly(1,1-difluoroethylene)	No information available
Polymerized Styrene Butadiene Rubber	No information available
Carboxymethylcellulose Sodium	No information available

13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label

Transporting Label	
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Sea transport (IMDG-Code / GGVSee)

UN number	3480
UN proper shipping name	LITHIUM ION BATTERIES (including lithium ion polymer batteries)
Transport hazard class	9
Transport subsidiary hazard class	None
Packing group	Packagings shall conform to the packing group II performance level
Marine pollutant (Yes or no)	No

Air transport (ICAO-IATA / DGR)

UN number	3480
UN proper shipping name	LITHIUM ION BATTERIES (including lithium ion polymer batteries)
Transport hazard class	9
Transport subsidiary hazard class	None
Packing group	Packagings shall conform to the packing group II performance level

Land transport (ADG-Code)

UN number	3480
UN proper shipping name	LITHIUM ION BATTERIES(including lithiumion polymer batteries)
Transport hazard class	9
Transport subsidiary hazard class	None
Packing group	Packagings shall conform to the packing group II performance level

15 Regulatory information

International chemical inventory

Component	EC inventory	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIICS	ENCS
Ferrous Lithium Phosphate	×	√	√	√	×	×	√	×	√
Graphite	√	√	√	√	√	√	√	√	×
Aluminium	√	√	√	√	√	√	√	√	√
Copper	√	√	√	√	√	√	√	√	√
Ethyl methyl carbonate	√	√	×	√	×	√	√	×	√
Dimethyl carbonate	√	√	√	√	√	√	√	√	√
Ethylene carbonate	√	√	√	√	√	√	√	√	√
Polyethylene	×	√	√	√	√	√	√	√	√
Carbon	√	√	√	√	√	√	√	√	√
Poly(1,1-difluoroethylene)	×	√	√	√	√	√	√	√	√
Polymerized Styrene Butadiene Rubber	×	√	√	√	√	√	√	√	√
Carboxymethylcellulose Sodium	×	√	√	√	√	√	√	√	√

[EC inventory] European Inventory of Existing Commercial Chemical Substances

[TSCA] United States Toxic Substances Control Act Inventory

[DSL] Canadian Domestic Substances List

[IECSC] China Inventory of Existing Chemical Substances

[NZIoC] New Zealand Inventory of Chemicals

[PICCS] Philippines Inventory of Chemicals and Chemical Substances

[KECI] Korea Existing Chemicals Inventory

[AIICS] Australian. Inventory of Industrial Chemical (AIICS)

[ENCS] Japan Inventory of Existing & New Chemical Substances

Note:

“√” Indicates that the substance included in the regulations.

“×” No data or not included in the regulations.

16 Other information

Information on revision

Creation Date	2024/02/29
Revision Date	-
Reason for revision	-

Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{ow}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor		

Disclaimer

This Safety Data Sheet (SDS) was prepared according to WHS. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.