

Document No.: HED2022UN1401 Issue date: 12.May.2022

Lithium-Ion Battery Test Summary

a.) Model Name: NERO L, NERO LX

b.) Product Manufacturer: **HEDBOX** Shenzhen N.K.Tech Co. Ltd.

Address: Fuzhong Ind. Park, Fuyong Street, Shenzen, China

Telephone Number: +386-40-316-553
E-Mail: sales@hedbox.com
URL: www.hedbox.com

c.) Test Laboratory: Shenzen NTEK New Energy Technology Co., Ltd

Address: Room 101, Builiding C, Fenda Hi-Tch Park, Sanwei Community

Hangcheng Subdistrict, Bao'an District, Shenzhen, China

Telephone Number: +86-755-3699 5529
E-Mail: 409925704@qq.com
URL: http://www.ntekbat.org.cn

d.) Identification Number: P22051000301

e.) Date of test report: 12 May 2022

f.) Description of product:

(i) Content: Lithium-Ion Rechargeable Battery Pack

(ii) Battery Pack Mass: 990g (iii) Nominal Voltage (V): 14.52V

Capacity (mAh/Wh): 13400mAh / 194.56Wh

Lithium Equvivalent Content: 15.71g

(iv) Physical Desctription: Battery with outher case(v) Model Number: NERO L, NERO LX

g.) Test Result:

No.	Test Item	Test Result	Note		
T1	Altitude Simulation	Passed			
T2	Thermal Test	est Passed			
T3	Vibration	Passed	First cycle fully	After 25 cycle fully charged 4 Batteries	
T4	Shock	Passed	charged 4 Batteries		
T5	External Short Circuit	Passed			
T6	Crush	Passed	First cycle 50% charged 5 cells		
T7	Overcharge	Passed	First cycle fully charged 4 Batteries	After 25 cycle fully charged 4 Batteries	
Т8	Forced Discharge	Passed	First cycle fully discharged 10 cells	After 25 cycle fully discharged 10 cells	

h.) Assembled Battery Testing Requirements: N/A

i.) Reference Editions: UN Manual of Tests and Criteria,

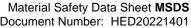
ST/SG/AC.10/11 / Rev6 / Amand.1 PartIII, sub-section 38.3

i.) Signature:

Zoran Komlenski

General Manager

Reaserch and Development Division



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MATERIAL SAFETY DATA SHE

Product: Li-ion Battery Pack

Model/type reference: NERO L, NERO LX

Nominal Voltage: 14.52V

13400mAh (194.56Wh) Rated Capacity:

HEDBOX D.O.O. Applicant:

Address: Poslovna Cona A10,

4208 Šencur, Slovenia - Europe

Report No: P22051000301

Effective date: 12-May-2022

12-May-2022 Revision date:

Laboratory: Shenzhen NTEK New Energy Technology Co., Ltd.

Room 101, Building C, Fenda Hi-Tech Park, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China.

Tel: +86(0)-755-3699 5529 http://www.ntekbat.org.cn

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Idetification: Lithium Ion Rechargeable Battery Pack

Product No.: NERO L, NERO LX

Manufacturer's / HEDBOX D.o.o.

Supplier Name:

Poslovna Cona A10, 4208 Sencur, Slovenia - Europe Address:

Telephone: +386 40 316 553

Emergency Phone Number: +386 40 333 613 (24h / Products Div. Direct)

E-mail address: sales@hedbox.com

ISO 11014:2009 Safety data sheet for chemical products Referenced documents:

Version number: V1.0



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2. HAZARDS IDENTIFICATION

Preparation hazards and classification	Not dangerous with normal use. Do not dismantle, open or shred the Li-ion Battery Pack ingredients contained within or their ingredients products could be harmful.				
Apperance, Color, and Odor	Solid object with no odor, no color.				
Primary Route(s) of Exposure	These chemicals are contained in a sealed enclosure. Risk of exposure occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, exposure to the electrolyte solution contained within can occur by Inhalation, Ingestion, Eye contact and Skin contact				
ACUTE (short term): see Section 8 for exposure controls In the event that battery has been ruptured, the electrolyte solution contained within the batter would be corrosive and can cause burns. Inhalation: Inhalation of materials from a sealed battery is not an expected route of exposure. Vapors or mists from a ruptured battery may cause respiratory irritation. Ingestion: Swallowing of materials from a sealed battery is not an expected					
Potential Health Effects:	route of exposure. Swallowing the contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. Skin: Contact between the battery and skin will not cause any harm. Skin contact with contents of an open battery can cause severe irritation or burns to				
the skin. Eye: Contact between the battery and the eye will not cause any harm. Ey contact with contents of an open battery can cause severe irritation or burn the eye. CHRONIC (long term): see Section 11 for additional toxicological data					
Medical Conditions Aggravated by Exposure	Not applicable 2 2 4 6 7 7				
Reported as carcinogen	Not applicable W				

3. COMPOSITION / INFORMATION ON INGREDIENTS

Li-ion Battery Pack is a mixture.

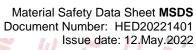
Hazardous Ingredients (Chemical Name)	Concentration or concentration ranges (%)	CAS Number
Aluminum Foil / 7	2-10	7429-90-5
Nickel oxide (proprietary)	0-80	N/A
Manganese(IV) oxide (proprietary)	0-15	N/A
Cobalt oxide (proprietary)	0-15	N/A
Styrene-Butadiene-Rubber	<1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	N/A
Polyvinylidene Fluoride (PVDF)	<5	24937-79-9
Copper Foil	2-10	7440-50-8
Carbon (proprietary)	10-30	N/A
Electrolyte (proprietary)	10-20	N/A
Silicon oxide (Proprietary)	<2	N/A

Labeling according to EC directives.

No symbol and risk phrase are required.

Note: CAS number is Chemical Abstract Service Registry Number.

N/A=Not applicable





4. FIRST-AID MEASURES

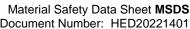
If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.
If skin contact with contents of an open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.
If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 mL (2-8 oz.) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility

5. FIRE-FIGHTING MEASURE

4	In the event that this battery has been ruptured, the electrolyte solution contain
Flammable	within the battery would be flammable. Like any sealed container, battery cells may
Properties	rupture when exposed to excessive heat; this could result in the release of
	flammable or corrosive materials.

Suitable extinguishing Media	Use extinguishing media suitable for the materials that are burning.				
Unsuitable extinguishing Media	Not available				
Explosion Data	Sensitivity to Mechanical Impact: This may result in rupture in extreme cases Sensitivity to Static Discharge: Not Applicable				
Specific Hazards arising from the chemical	Fires involving Li-ion Battery Pack are controlled with water. When water is used, however, hydrogen gas may evolve. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended to extinguish the fire				
Protective Equipment and precautions for firefighters	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Fight				
NFPA	Health: 0 Flammability: 0 Instability: 0				





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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, protective equipment, and emergency procedures	Restrict access to area until completion of clean-up. Do not touch the spilled material. Wear adequate personal protective equipment as indicated in Section 8.		
Environmental Precautions	Prevent material from contaminating soil and from entering sewers or waterways.		
Methods and materials for Containment	Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills immediately.		
Methods and materials for cleaning up	Absorb spilled material with an inert absorbent (dry sand or earth). Scoop contaminated absorbent into an acceptable waste container. Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub the area with detergent and water; collect all contaminated wash water for proper disposal.		

7. HANDLING AND STORAGE

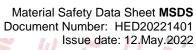
Handling

- Don't handle Li-ion Battery Pack with metalwork.
- Do not open, dissemble, crush or burn battery.
- Ensure good ventilation/ exhaustion at the workplace.
- Prevent formation of dust.
- Information about protection against explosions and fires: Keep ignition sources away
- Do not smoke
- Do not connect the positive terminal to the negative terminal with electrical wire or chain.
- Avoid polarity reverse connection when installing the battery to an instrument.
- Do not wet the battery with water, seawater, drink or acid; or expose to strong oxidizer.
- Do not damage or remove the battery case.
- Keep the battery away from heat and fire.
- Do not disassemble or reconstruct the battery; or solder the battery directly.
- Do not give a mechanical shock or deform.
- Do not use unauthorized charger or other charging method. Terminate charging when the charging process doesn't end within specified time.
- In the case of charging, use only dedicated charger or charge according to the conditions specified
- by HEDBOX.

Storage

- If the Li-ion Battery Pack is subject to storage for such a long term as more than 3 months, it is recommended to recharge the Li-ion Battery Pack periodically.
- 3 months: -10°C~+40°C, 45 to 85%RH And recommended at 0°C~+35°C for long period storage.

 The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more.
- Do not store Li-ion Battery Pack haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.
- Keep out of reach of children.
- Do not expose Li-ion Battery Pack to heat or fire.
- Avoid storage in direct sunlight.
- Do not store together with oxidizing and acidic materials.





8. EXPOSURE CONTROLS / PERSONAL PROTECTION

11 2 30	
Engineering Controls	Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor. Keep away from heat and open flame. Store in a cool, dry place.
Personal Protective Equipment	Respiratory Protection: Not necessary under normal conditions. Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery. Hand protection: Wear neoprene or natural rubber material gloves if
r eisonai r iotective Equipment	handling an open or leaking battery. Eye Protection: Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.
Other Protective Equipment	Have a safety shower and eye wash fountain readily available in the immediate work area.
Hygiene Measures	Have a safety shower and eye wash fountain readily available in the immediate work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

	Print II I may be a second of the second of
S X X X X X Y W Y V 3	Form: Solid
Physical State State	Color: Black
$I \cap Z \cap Z \times I = I \times I$	Odor: Odorless
Change in condition:	9 7 4 1 7 7 7
pH, with indication of the concentration	Not applicable
Melting point/freezing point	Not available.
Boiling Point, initial boiling point and Boiling range:	Not available.
Flash Point W	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor Pressure:	Not applicable
Vapor Density: (Air = 1)	Not applicable
Density/relative density	Not available.
Solubility in Water:	Insoluble // //
n-octanol/water partition coefficient	Not available.
Auto-ignition temperature	130°C
Decomposition temperature	Not available. 🦠 🦷 🧶
Odout threshold // // // // // // // // // // // // //	Not available.
Evaporation rate	Not available.
Flammability (soil, gas)	Not available.
Viscosity	Not applicable



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10. STABILITY AND REACTIVITY

Stability: Stable under normal use.

- Conditions to avoid: Do not subject Li-ion Battery Pack to mechanical shock.
 Vibration encountered during transportation does not cause leakage, fire or explosion. Do not disassemble, crush, short or install with incorrect polarity. Avoid mechanical or electrical abuse.
- Materials to avoid: Conductive materials, water, seawater, strong oxidizers and strongacids.
- Hazardous decomposition products: Acrid or harmful gas is emitted during fire.

For molding case

- Thermal decomposition: Decomposition begins at 380°C
- Reactivity with water: none
- Self-reactivity: none

Hazardous decomposition products:

 Smoldering or incomplete combustion leads to the formation of toxic gasmixture such as carbondioxide, carbon monoxide and traces of aliphatic and aromatic hydrocarbons, aldehydes, acids, phenol and phenol derivatives.

Hazardous reaction:

No hazardous reaction observed.

11. TOXICOLOGICAL INFORMATION

Irritation	Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.
Sensitization	Not Available
Neurological Effects	Not Available
Teratogenicity	Not Available // 7/
Reproductive Toxicity	Not Available William
Mutagenicity (Genetic Effects)	Not Available 🦠 🥳 🌉 🥂 💹 🦅
Toxicologically Synergistic Materials	Not Available

12. ECOLOGICAL INFORMATION

	Water hazard class 1(Self-assessment): slightly hazardous for
	water.
General note:	Do not allow undiluted product or large quantities of it to reach
RURX.	ground water, water course or sewage system.
	ground water, water course or sewage system.
Anticipated behavior of a chemical	k
product in environment/possible	Not Available 💹 🎢 💹 🦘
environmental impace/ecotoxicity	n x v " I Z II Y
Mobility in soil	Not Available Not Available



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13. DISPOSAL CONSIDERATIONS

Recommended methods for safe and environmentally preferred disposal

Product (waste from residues)

Specified collection or disposal of lithium ion battery is required by the law like as "battery control law' in several nations. Collection or recycle of the battery is mainly imposed on battery's manufacturer or importer in the nations recycle is required.

Contaminated packaging

- Neither a container nor packing is contaminated during normal use. When internal materials leaked from a battery cells contaminates, dispose as industrial wastes subject to special control.
- Waste disposal: Efforts to recycle material should be made. If unable to use recycle, material should be buried in approved landfill or incinerated inaccordance all applicable with federal, state and local regulations.

14. TRANSPORT INFORMATION

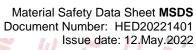
With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing instruction 965, section I A (2021-2022 Edition).
- The International Air transport Association (IATA) Dangerous Goods Regulations, Packing instruction 965, section I A (63rd Edition, 2022).
- The International Maritime Dangerous Goods (IMDG) Code (Amendment 40-20 Edition).
- The US Hazardous Materials Regulation 49CRF (Code of Federal Regulations).
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria 38.3 Lithium batteries
- -Proper shipping name and UN ID number: LITHIUM ION BATTERIES, UN No.: UN3480.

Our products are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to all the applicable international and national governmental regulations, and should be transported as Class 9 hazardous material. We further certify that the enclosed products have been tested and fulfilled the requirements and conditions in accordance with UN Recommendations (T1 – T8) on the Transport of Dangerous Goods Model Regulations and the Manual of Tests and Criteria.

1	$-\vec{\tau} = U + i$	UN Recommendation		Dangerous Goods	y y y
	1985 1985	Criteria (38.3 Lithium ba	and the second	Daniel Control	%
_	Vo.	Test items	Test results	Remark	S0
-	Γ1	Altitude simulation	Pass //	-// % 0	2 1
1	Γ2	Thermal test	Pass	7 1 1 1	0 2 .
7	Γ3	Vibration	Pass A	- J 71 21	$n \cup n$
J	Γ4 💝 🗍	Shock	Pass 🦠	W M LI	II = II = II
1	<u>Γ</u> 5	External short circuit	Pass	7 4 6 6	17:41
	Γ6 // //	Impact	Pass		1 5 71
	Г7 🦪 💹	Overcharge	Pass	-	U M
100	Γ8 🌽 🚺 💃	Forced discharge	Pass	4	7 4

The following information is provided for domestic and international transportation





DOT regulations:	11 2 0 2	XLII	4
UN Classification (Transport Hazard class):	9		100
UN number:	3480		6
Packing group:	T 7 7 6 5		
UN Proper shipping name(technical name):	LITHIUM ION BATTERIES		1 0
Marine pollutant(Y/N)	N		
Label:	Class 9 (Lithium batteries)		4
Land transportation ADR/RID (cross-	proder)	3 2 2	Wife
ADR/RID class:	9 Miscellaneous dangerous substances and articles	1 2 0 2 1	-
Danger code(Kemler):	9		
UN-Number:	3480		-
Packaging group:	11/2 /		1
Marine pollutant(Y/N):	N S		3/
Label:	Class 9 (Lithium batteries)	9	13-
Description of goods:	LITHIUM ION BATTERIES	RERX	
Sea transport IMDG:		11 11 13 12	
Class or division:	Class 9		1
UN Number:	3480		
Label:	Class 9 (Lithium batteries)		J
Packaging group:	4 11 11 11 13 13		
EMS Number:	F-A, S-I		
Marine pollutant(Y/N):	N	9	1
Propper shipping name:	LITHIUM ION BATTERIES	y a gi.	1
Air transport ICAO-TI and IATA-DGR:	OXX	TYU	Ų
Class or division:	Class 9		e di
UN Number:	3480		
Label:	Class 9 (Lithium batteries)		3
Packaging group:	nt y u y		Pag
Marine pollutant(Y/N):	N	9	7
Propper shipping name:	LITHIUM ION BATTERIES		



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15. REGULATORY INFORMATION
Regulations specifically applicable to the product:
OSHA hazard communication standard (29 CFR 1910.1200)
Hazardous V Non-hazardous V Non-hazardous
@ # ii # ji
16. OTHER INFORMATION
The information of their Single Coffee Mars the stiff for the Special Coffee and
 The information contained in this Safety data sheet is based on the present sate of knowledge and current legislation.
 This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular
applications. - HEDBOXmakes no warranty, expressed or implied regarding the accuracy of these data or the results
tobe obtained from the use thereof. HEDBOXassumes no responsibility for injury from the use to the
productdescribed herein.
Reference T T T T T T T T T T T T T T T T T T T
■ Dangerous Goods Regulations – 63th Edition Effective from 1 January 2022
International AirTransport Association (IATA) IMDG Code -2018 Efition: International Maritime Organization(IMO)
The European Agreemant concerning the International Carriage of Dangerous Goods by Road
 -2019:The United Nations Economic Commission for Europe(UNECE) MSDS of raw materials prepared by the manufactures:
The street materials propared by the mandacture.
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Prepared and approved by:
X X Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z
Products Division Technical Development
HEDBOX Doo
HUNISKY L TEGHUN
2 11 2 11 21 D 2 K X * T 2 11 U