

Section 1 Identification.

Product name:

NOCO® 90Ah 12V Lithium Battery

Product code:

NLX24

Recommended use: Cars, Boats, RV's, Solar and other Equipment

Nominal voltage: 12.8V

Rated capacity: 90Ah

Watt hour (electric energy): 1152Wh

Lithium Content: 108.0g/battery – 1 Battery

Manufacturer/ The NOCO Company AU
Importer: 30339 Diamond Pkwy. #102
Glenwillow, OH 44139

Email: support@no.co

Emergency Phone #: 1-800-219-8391 (Ambipar Response 24/7)

Information Phone #: 1-800-456-6626

Section 2 Hazards Identification.

Under normal conditions of processing and use, exposure to the chemical constituents in this product is unlikely. The product should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

Classification of the substance or mixture: Physical hazards: Not Classified
Health hazards: Not Classified
Environmental hazards: Not Classified

GHS Label Elements: No signal word, pictograms, hazard, or precautionary statements have been allocated.

Other Hazards: Under normal conditions of use, the electrode materials and liquid electrolyte they contain are not exposed to the outside, provided the battery integrity is maintained and seals remain intact. Exposure may occur because of external environmental conditions or in cases of abuse (mechanical, thermal, electrical) which lead to the activation of safety pressure relief valve(s) and/or cause a rupture of the battery container. Electrolyte leakage, electrode materials reaction with moisture/water or battery vent/explosion/fire may follow, depending upon the circumstances.

Do not short circuit, recharge, puncture, incinerate, crush, immerse, force discharge, or expose to temperatures above the declared operating temperature range of the product.
Risk of fire or explosion.

Section 3 Composition/information on ingredients.

Exposure to hazardous ingredients is not anticipated under normal product use. Risk of exposure occurs only if the product is mechanically, thermally, or electrically abused to the point of compromising the enclosure.

Chemical Name	Molecular Formula	CAS Number	Concentration %
Lithium Iron Phosphate	LiFePO_4	15365-14-7	20-40
Graphite	$\text{C}_{24}\text{X}_{12}$	7782-42-5	10-20
Polyvinylidene Fluoride (PVDF)	$\text{C}_2\text{H}_2\text{F}_2$	24937-79-9	≤1
Aluminum	Al	7429-90-5	5-10
Styrene Butadiene Rubber (SBR)	$\text{C}_{36}\text{H}_{42}\text{X}_2$	61789-96-6	≤1
Carboxymethylcellulose	$\text{C}_6\text{H}_{12}\text{O}_6$	9000-11-7	≤1
Copper	Cu	7440-50-8	10-15
Nickel	Ni	7440-02-0	1-5
Lithium Hexafluorophosphate	LiPF_6	21324-40-3	10-20
Nylon	C_2ClF_3	24937-16-4	≤1
Polypropylene	$(\text{C}_3\text{H}_6)_n$	9003-07-0	≤1

Section 4 First aid measures.

Ingestion: Ingestion of battery contents if battery is compromised due to incorrect use or damaged may cause mouth, throat, and intestinal burns. Seek immediate medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Inhalation: Inhalation of vapors or fumes released due to heat, damage, or incorrect use, may cause respiratory irritation. If irritation of nose or throat develops, move away from source of exposure and into fresh air. Seek immediate medical attention.

Eye Contact: For direct contact of chemicals in the battery, flush the affected eye(s) with gentle stream of clean water for at least 15 minutes, if irritation persists; seek medical attention.

Skin Exposure: Contact with the internal battery materials can cause burns and skin irritation. If contact should occur, immediately flush with plenty of water. Cleanse affected area(s) thoroughly by washing with mild soap and water and, if necessary, a waterless skin cleaner. If irritation or redness develops and persists, seek medical attention.

Symptoms cause by Exposure: Exposure to contents of an open or damaged battery: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result. May cause allergic skin reaction. Difficulty in breathing, coughing. Prolonged exposure may cause chronic effects.

Personal protection for first-aid responders: Use personal protective equipment sufficient to prevent direct skin or eye contact or inhalation of fumes. If potential exposure exists refer to Section 8 for specific personal protective equipment.

Section 4 First aid measures continued.

Medical attention and special treatment: Provide general supportive measures and treat symptomatically. Keep the victim warm. Keep the victim under observation. Symptoms may be delayed.

Section 5 Firefighting measures.

Exposure to excessive heat can cause venting of the liquid electrolyte.

Extinguishing media: Use foam, dry powder, or dry sand, CO₂ as appropriate. Use fire-extinguishing media appropriate for surrounding areas. Do not use water unless flooding amounts are available. When the battery burns with other combustible items, use the fire-extinguishing medium and fire foam.

Specific Hazards: Under fire conditions, batteries may burst and release hazardous decomposition products. This could result in the release of flammable or corrosive materials.

Hazardous combustion product: Metal oxides, irritating fumes.

Protective equipment and precautions for firefighters: Firefighters must wear fire resistant protective equipment and appropriate breathing apparatus. Fire and toxic gas resistant clothing is recommended. Remove the container to open space as soon as possible. Be upwind of the fire before extinguishing.

Section 6 Accidental release measures.

The material contained within the batteries would only be expelled under abusive conditions.

Personal precautions, protective equipment, and emergency procedures: If battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. The preferred response is to leave the area, dispose of the case after the batteries have cooled, and vapors have dissipated. Avoid contact with skin and eyes and avoid inhalations of vapors.

Methods for containment: Using shovel or broom, cover battery or spilled substances with dry sand or vermiculite, place in approved container (after cooling if necessary).

Waste disposal method: Collect all released material in a plastic lined container. Dispose of according to local law and rules (see Section 13). Dispose of in a timely manner as leached substances can be absorbed into the earth, and subsequently the water.

Section 7 Handling and storage.

Handling: Precautions to be taken in handling and storage: Always follow the warning information in the product user manual and in the manuals of devices product will be used on. Keep product away from children. Product should be protected against unauthorized use and access. Do not connect the positive terminal to the negative terminal with electrically conductive material. Do not disassemble, crush, or burn product. Ensure good ventilation when using. In case of recharging, use only a dedicated charger and charge according to the conditions specified in the user manual. We recommend NOCO GENIUSPRO50.

Section 7 Handling and storage continued.

Storage: Avoid direct sunlight, high temperature, and high humidity. Store in cool, dry place (temperature: 20 – 35°C, humidity: 45 – 85%). Keep out of reach of children. Do not store or use product near fire or heaters. Do not store together with oxidizing and acidic materials. Do not immerse in water.

If product is subject to storage for a long period of time (more than 3 months), it is recommended to recharge it periodically.

Section 8 Exposure controls/personal protection.

Ventilation: Use where there is adequate ventilation. Keep away from heat and flames.

Respiratory protection: Not necessary under normal use. In case of battery rupture, use self-contained full-face respiratory equipment. Equipment with ABEK filter.

Protective Gloves: Not necessary under normal use. Use rubber gloves if handling a leaking or ruptured battery.

Eye Protection: Not necessary under normal use. Wear safety goggles or glasses with side shields if handling a leaking or ruptured battery.

Skin Protection: Not necessary under normal use. Use rubber apron if handling a leaking or ruptured battery.

Other Protective Equipment: Not necessary under normal use.

Hygiene Measures: Do not eat, drink, or smoke when using this product.

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants 2024, Appendix A)

Components	Type	Value	Form
Aluminum (CAS 7429-90-5)	TWA	5 mg/m ³	
		5 mg/m ³	Fume.
		10 mg/m ³	Dust.
Copper (CAS 7440-50-8)	TWA	1 mg/m ³	Dust and mist.
		0.2 mg/m ³	Fume.
Graphite (CAS 7782-42-5)	TWA	3 mg/m ³	Respirable dust.
Nickel (CAS 7440-02-0)	TWA	0.1 mg/m ³	

Section 8 Exposure controls/personal protection continued.

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value	Form
Aluminum (CAS 7429-90-5)	TWA	5 mg/m3	Welding fume.
		5 mg/m3	Pyrophoric powder.
		10 mg/m3	Dust.
Copper (CAS 7440-50-8)	TWA	1 mg/m3	Dust and mist.
		0.2 mg/m3	Fume.
Graphite (CAS 7782-42-5)	TWA	3 mg/m3	Respirable dust.
Nickel (CAS 7440-02-0)	TWA	1 mg/m3	

Section 9 Physical and Chemical Properties.

Cells are not a single chemical material: there are no specific physical and chemical properties such as melting point and boiling point.

Physical State: Solid

Solubility: Insoluble in water.

Self-Igniting: Product is not self-igniting.

Section 10 Stability and Reactivity.

Stability: Stable under recommended storing conditions described in Section 7.

Incompatibility: Avoid contact with strong acids, corrosives, and oxidizing agents.

Possibility of hazardous reactions: When heated above 90°C, the risk of rupture occurs. Due to special safety construction, rupture implies controlled release of pressure without ignition.

Hazardous Decomposition

Products: Under fire conditions, the electrode materials can form carcinogenic cobalt oxides.

Section 11 Toxicological information.

As the battery materials in this product are sealed, the potential for exposure to the components of the battery is negligible. However technical or electrical abuse of the product, including dismantling, crushing, exposing to heat or fire, improper storage, or other abuse to the point of compromising the enclosure, irritation to the skin, eyes, and respiratory tract may occur.

Section 12 Ecological information.

When properly used or disposed of (see section 13), the batteries do not present an environmental hazard.

Section 13 Disposal considerations.

The battery should be recycled. It should be completely discharged prior to disposal. Collect and reclaim or dispose of sealed containers at licensed waste disposal sites. Refer to National or Local regulations before handling. Disposal of the product should be performed by permitted, professional disposal firms knowledgeable in National or Local regulations of hazardous waste treatment and hazardous waste transportation.

If leaking or damaged, it should be taken to an approved waste handling site for recycling or disposal. Incineration should never be performed by battery users but eventually by trained professionals in authorized facilities with proper gas and fumes treatment.

Section 14 Transport information.

The product in this Safety Data Sheet is over 100Wh. Lithium batteries which have been transportation tested but have a possible stored energy of >100Wh must be transported as Class 9 dangerous goods which impose strict packaging, labeling and documentation requirements on those shipping the product. **Special training and certification are required for those wishing to ship class 9 dangerous goods.**

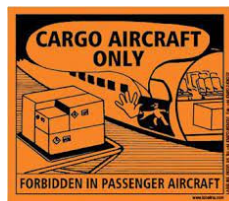
When transported in original packaging, this product complies with all applicable shipping regulations as prescribed by industry and legal standards which include UN Recommendations on the Transport of Dangerous Goods. Cells and batteries have been proven to meet the requirements of each applicable test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3. Original packaging is UN approved carton.

Label Requirements:

All modes of transportation:



Air:



ADG: UN Number: UN3480

Proper Shipping Name: Lithium-ion battery

Transport Hazard Classes: Class 9
Subsidiary risk –
Packing Group –
Environmental Hazards: No
Hazchem Code: 2Y

Special precautions: Read safety instructions, SDS and emergency procedures before handling.

Section 14 Transport information continued.

RID: UN Number: UN3480

Proper Shipping Name: Lithium-ion battery

Transport Hazard Classes: Class 9
Subsidiary risk –
Packing Group –
Environmental Hazards: No

Special precautions: Read safety instructions, SDS and emergency procedures before handling.

IATA: UN Number: UN3480

Proper Shipping Name: Lithium-ion battery

Transport Hazard Classes: Class 9
Subsidiary risk –
Packing Group – 965 Section 1A
Environmental Hazards: No
IMP: RBI

Special precautions: Read safety instructions, SDS and emergency procedures before handling.

IMDG: UN Number: UN3480

Proper Shipping Name: Lithium-ion battery

Transport Hazard Classes: Class 9
Subsidiary risk –
Packing Group – II
Environmental Hazards/Marine Pollutant: No
EmS: F-A, S-I

Special precautions: Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to ANNEX II of MARPOL 73/73 and the IBC Code: Not applicable.

General Information: The dangerous goods regulations require that each cell and battery designed be subject to tests contained in Part III, subsection 38.3 of the UN Manual of Tests and Criteria prior to being offered for transport. Batteries containing these cells should be transported as Class 9 Hazardous materials, except for those battery types declared to be exempt.

Section 15 Regulatory information.

Batteries are exempt from The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

AUSTRALIA: AICS (Australian Inventory of Chemical Substances): One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

Major applicable regulations for the transportation of lithium-ion cells and batteries are as follows:

- IATA Lithium Battery Guidance Document (2024)
- International Maritime Organization (IMO) International Maritime Dangerous Goods (IMDG) Code, 2022 Edition (inc. Amendment 41-22_
- SafeWork Australia Workplace Exposure Standards for Airborne Contaminants (18 January 2024)
- Australia Code for the Transport of Dangerous Goods by Road and Rail – Edition 7.8, 2022

Section 16 Other information.

Prepared on: March 29, 2024

Revised on: April 1, 2024

The information herein presented in good faith and believed to be accurate, based on the present state of knowledge and current legislation, as of the date of document preparation. This safety data sheet provides guidance on health, safety, environmental, and transportation aspects of the product for users who have professional training.

As this information may be applied under conditions beyond our control and with which we may be unfamiliar; no warranty, expressed or implied, is given; and this document should not be construed as any guarantee of technical performance or suitability for specific applications. It is the buyer's responsibility to ensure that its activities comply with National, Federal, State, and local laws.