SAFETY DATA SHEET

According to Hazard Communication standard (OSHA HCS) 29 CFR 1910.1200

1. Identification

Date:	June 6, 2026
Sample name:	Vanair® Start-All® Jump-Pack 2500A
Sample model:	JP-12-2500
Rating:	14.8V/4000mAh/59.2Wh Unit Weight: 4.4 lbs.
Recommended use:	Multi-function rechargeable lithium-iron battery jump starter.
Restrictions on use:	Not known. Read this SDS before using this product.

Manufacturer:	Vanair®, a Lincoln Electric Company
Address: Telephone	10896 West 300 North, Michigan City, Indiana, 46360
no:	+1 (800) 526-8817

24/7 Contact:	CHEMTREC (USA) +1 (800) 424-9300
	CHEMTREC Customer Number (CCN): 848844

2. Hazard(s) Identification

(a) Preparation Hazards and Classification

No harm with normal use. When the battery is in extreme pressure deformation, high-temperature environment, overload, short-circuit condition, or disassembled, an explosion of fire and chemical burn hazards may occur.

(b) Primary Route(s) of Exposure

These chemicals are contained in a sealed stainless steel enclosure or a sealed aluminum foil pocket. 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.

(c) Potential Health Effects

ACUTE (short term): See Section 8 for exposure controls. In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be corrosive and can cause burns.

Inhalation: A battery volatilizes no gas unless it is damaged. Damaged battery will volatilize little gas that may stimulate the respiratory tract or cause anaphylaxis in serious conditions.

Ingestion: Swallowing battery will cause damage to the respiratory tract and cause chemical burns to the stomach. In serious conditions it will cause permanent damage.

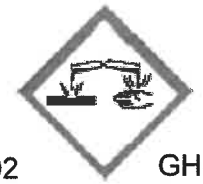
Skin: In normal conditions, contact between the battery and skin will not cause any harms. Contact with a damaged battery may cause skin allergies or chemical burns.

Eye: In normal condition, contact between the battery and eyes will not cause any harm. However, the gas volatilized from a damaged battery may be harmful to eyes.

CHRONIC (long term): See Section 11 for additional toxicological data.

(d) Medical Conditions Aggravated by Exposure
No information available.
(e) Reported as Carcinogen
No information available.

(f) GHS Label elements including precautionary statements

GHS02

GHS05

GHS06

GHS07

Signal word: Warning
Hazard statement(s):
H242: Heating may cause a fire;
H302: Harmful if swallowed;
H332: Harmful if inhaled.

Signal word: Danger
H311: Toxic in contact with skin;
H314: Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P210: Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking.
P234: Keep only in original container.
P235: Keep cool.
P240: Ground/bond container and receiving equipment.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P316: Get emergency medical help immediately.
P317: Get emergency medical help.
P321: Specific treatment (see information on this label and safety data sheet)).
P330: Rinse mouth.
P301 + P330 + P331: IF SWALLOWED - Rinse mouth. Do NOT induce vomiting.
P301 + P317: IF SWALLOWED - Get medical help.
P302 + P352: IF ON SKIN - Wash with plenty of water.
P302 + P361 + P354: IF ON SKIN - Take off immediately all contaminated clothing. Rinse SKIN with water [or shower].
P305 + P354 + P338: IF IN EYES - Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P361 + P364: Take off immediately all contaminated clothing and wash it before use.
P370 + P378: In case of fire - Use a lithium extinguisher to extinguish.

Disposal:
P501: Dispose of contents/container in accordance with local/national regulations.

Hazards not otherwise classified (HNOC):
Not Applicable

3. Composition/Information on Ingredients

(a) **Mixtures information**

Chemical Name	Percent of Content（%）	CAS No.
Lithium Cobalt Oxide (LiCoO2)	29	12190-79-3
Graphite (C)	17	7782-42-5
Acetylene Black (SP)	4	1333-86-4
Carbonate, methyl ethyl	10	623-53-0
Lithium hexafluorophosphate (LiPF6)	9	21324-40-3
Copper (Cu)	16	7440-50-8
Nickel（Ni）	4	7440-02-0
Aluminum (Al)	11	7429-90-5

4. First-Aid Measures

(a) Description of first aid measures
Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice / attention if you feel unwell.

Skin contact: Remove contaminated clothes and rinse the skin with plenty of water. Get medical advice /attention if you feel unwell.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice / attention if you feel unwell.

Ingestion: Have victim drink 60 to 240 mL (2-8 oz.) of water. and DO NOT induce vomiting. Get medical aid.

(b) Most important symptoms/effects, acute and delayed

Contact with internal components may cause allergic skin sensitization (rash) and irritate eyes, skin, nose, throat, respiratory system. Cobalt and Cobalt compounds are considered to be possible human carcinogen(s).

(c) Immediate medical attention and special treatment
No information available.

5. Fire-Fighting Measures

(a) Extinguishing media
Suitable extinguishing media : Use foam, dry powder or dry sand, CO_2 as appropriate.
Unsuitable extinguishing media : No information available.
(b) Special hazards arising from the chemical
Under fire conditions, batteries may burst and release hazardous decomposition products when exposed to a fire situation. This could result in the release of flammable or corrosive materials. Hazardous combustion products: CO, CO2, Metal oxides, Irritating fumes.
(c) Special protective equipment and precautions for fire-fighters
Firefighters must wear fire resistant protective equipment and appropriate breathing apparatus. The staff must equip with filtermask (full mask) or isolated breathing apparatus. The staff must wear the clothes which can defense the fire and the toxic gas. Put out the fire in the upwind direction. Remove the container to the open space as soon as possible. Spray water on the containers in the fireplace to keep them cool until extinguished.

6. Accidental Release Measures

(a) Personal precautions, protective equipment and emergency procedures

If the Lithium 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 the case after the batteries cool and vapors dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors.

(b) Environmental Precautions
Prevent material from contaminating soil and from entering sewers or waterways.

(c) Methods and materials for containment and cleaning up
If battery casing is dismantled, small amounts of electrolyte may leak. Collect all released material in a plastic lined container. Dispose of according to the local law and rules. Avoid leaching substances into the earth, canalization or waters.

7. Handling and Storage

(a) Precautions for safe handling
Always follow the warning information on the batteries and in the manuals of devices. Only use the recommended battery types. Keep batteries away from children. For devices to be used by children, the battery casing should be protected against unauthorized access. Unpacked batteries shall not lie about in bulk. In case of battery change always replace all batteries by new ones of identical type and brand. Do not swallow batteries. Do not throw batteries into water. Do not throw batteries into fire. Avoid deep discharge. Do not short-circuit batteries. Use recommended charging time and current.

(b) Conditions for safe storage, including any incompatibilities
If the Lithium battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the Lithium battery periodically. Operating temperature: Charge:0°C~45°C. Discharge: -10°C~50°C. And recommended at -10°C~45°C for 1 month storage, at -10°C~35°C for 3 months storage. The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more. The voltage for a long time storage shall be 3.7V~4.2V range per cell block. Do not store Lithium batteries 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.

8. Exposure Controls/Personal Protection

(a) 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.

(b) 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 Nitrile rubber material gloves if handling an open or leaking battery.

Eye Protection: Not necessary under normal conditions. Wear safety glasses if handling an open or leaking battery.

(c) Other Protective Equipment
Have a safety shower and eye wash fountain readily available in the immediate work area.

(d) Hygiene Measures
Do not eat, drink, or smoke in work area. Maintain good housekeeping.

9. Physical and Chemical Properties

(a)	Appearance	Solid
(b)	Odor	Monotony
(c)	Odor threshold	Not available
(d)	pH	Not available
(e)	Melting point/freezing point	Not available
(f)	Initial boiling point and boiling range	Not available
(g)	Flash poin	Not available
(h)	Evaporation rate	Not available
(i)	Flammability	Not available
(j)	Upper/lower flammability or explosive limits	Not available
(k)	Vapor pressure	Not available

(l)	Vapor density	Not available
(m)	Relative density	Not available
(n)	Solubility(ies)	Not available
(o)	Partition coefficient: n-octanol/water	Not available
(p)	Auto-ignition temperature	130°C
(q)	Decomposition temperature	Not available
(r)	Viscosity	Not available

10. Stability and Reactivity

(a) Reactivity
Stable under recommended storage and handling conditions.

(b) Chemical stability
Stable under normal conditions.

(c) Possibility of hazardous reactions
When heated above 150°C, the risk of rupture occurs. Due to special safety construction, rupture implies continuous release of pressure without ignition.

(d) Conditions to avoid
Do not subject Lithium battery to mechanical shock. Keep away from open flames, high temperature.

(e) Incompatible materials
Strong oxidizer, strong acid.

(f) Hazardous decomposition products
Under fire conditions, the electrode materials can form carcinogenic nickel and cobalt oxides.

11. Toxicological Information

(a) Information on the likely routes of exposure
Inhalation: Inhalation of a large number of vapors or fumes released due to heat may cause respiratory issues.

Ingestion: Ingestion of battery contents may cause mouth, throat and intestinal burns and damage.

Skin contact: Contact with battery electrolyte may cause burns and skin irritation.

Eye contact: Contact with battery electrolyte may cause burns. Eye damage is possible.

Under normal conditions (during charge and discharge) release of ingredients does not occur. If accidental release occurs see information in section 2, and 4. Swallowing of a battery can be harmful. Call the local Poison Control Centre for advice and follow-up.

(b) Information on toxicological characteristics
Acute toxicity: No data available.
Skin corrosion/irritation: The liquid in the battery irritates.
Serious eye damage/irritation: The liquid in the battery irritates.
Respiratory sensitization: The liquid in the battery may cause sensitization to some person.
Skin sensitization: The liquid in the battery may cause sensitization to some person.
Carcinogenicity: Cobalt and Cobalt compounds are considered to be possible human carcinogen(s).
Germ Cell Mutagenicity: No data available.
Reproductive Toxicity: No data available.
STOT-Single Exposure: No data available.
STOT-Repeated Exposure: No data available.
Aspiration Hazard: No data available.

12. Ecological Information

(a) Ecotoxicity
Water hazard class 1(Self-assessment): slightly hazardous for water.
(b) Persistence and Degradability
No information available.
(c) Bioaccumulative potential
No information available.
(d) Mobility in soil
No information available.
(e) Other adverse effects
No information available.

13. Disposal Considerations

(a) Safe handling and methods of disposal

Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Product disposal recommendation: Observe local, state and federal laws and regulations.

Packaging disposal recommendation: Be aware discarded batteries may cause fire, tape the battery terminals to insulate them. Don't disassemble the battery. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local, state and federal laws and regulations. Consider the potential effects on the environment and human health of the substances used in batteries and accumulators; the desirability of not disposing of waste batteries and accumulators as unsorted municipal waste and of participating in their separate collection so as to facilitate treatment and recycling.

14. Transport Information

DOT

UN Number	UN3481
UN Proper Shipping Name	Lithium ion batteries contained in equipment 9
Transport Hazard Class	9
Marine Pollutant	No
ERG	147
Packing Instr.	185
Label	9 Lithium ion battery
Exemption	Product may be shipped under 49 CFR, subpart 173.185 (c) if applicable conditions are met.

The dangerous goods regulations require that each battery design be subjected to tests contained in Section 38.3 of the UN Manual of Tests and Criteria prior to being offered for transport.

IMDG

UN Number	UN3481
UN Proper Shipping Name	Lithium ion batteries contained in equipment
Transport Hazard Class	9
Marine Pollutant	No
EmS	F-A, S-I
Stowage Cat.	A
Label	9 Lithium ion battery
Excepted Qty.	E0

IATA

UN Number	UN3481
UN Proper Shipping Name	Lithium ion batteries contained in equipment
Transport Hazard Class	9
Marine Pollutant	No
Packing Instr.	967
Label	9 Lithium ion battery
Excepted Qty.	E0

Transport in bulk according to Annex II of MARPOL and IBC Code: Not applicable

15. Regulatory Information

Contact manufacturer for more information.

16. Other Information

Revision Date: 6/16/26 *(added CHEMTREC information)*

Further Information: Additional information is available by request.

Disclaimer: The Lincoln Electric Company urges each end user and recipient of this SDS to study it carefully. See also www.lincolnelectric.com/safety. If necessary, consult an industrial hygienist or other expert to understand this information and safeguard the environment and protect workers from potential hazards associated with the handling or use of this product. This information is believed to be accurate as of the revision date shown above. However, no warranty, expressed or implied, is given. Because the conditions or methods of use are beyond Lincoln Electric's control, we assume no liability resulting from the use of this product. Regulatory requirements are subject to change and may differ between various locations. Compliance with all applicable Federal, State, Provincial, and local laws and regulations remain the responsibility of the user.

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