## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Lithium Ion Battery in/with Clipper/Shaver/Trimmer/Nail Grinder/Massager

### 1.2. Intended Use of the Product

Lithium based battery product

### 1.3. Name, Address, and Telephone of the Responsible Party

Wahl Clipper Corporation
2900 N. Locust Street
Sterling, IL 61081 USA
USA
Phone: (815) 625-6525

### 1.4. Emergency Telephone Number

**Emergency Number** : VelocityEHS
(800)255-3924 (North America)
+1 (813)248-0585 (International)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**GHS-US/CA Classification**

| | |
|---|---|
| Acute toxicity (oral) Category 4 | H302 |
| Acute toxicity (inhalation:dust,mist) Category 2 | H330 |
| Skin corrosion/irritation Category 2 | H315 |
| Serious eye damage/eye irritation Category 1 | H318 |
| Carcinogenicity Category 2 | H351 |
| Specific target organ toxicity (repeated exposure) Category 1 | H372 |
| Hazardous to the aquatic environment – Chronic Hazard Category 3 | H412 |

### 2.2. Label Elements

**GHS-US/CA Labeling**

**Hazard Pictograms (GHS-US/CA)** :



GHS05 GHS06 GHS08

**Signal Word (GHS-US/CA)** : Danger

**Hazard Statements (GHS-US/CA)** : H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H330 - Fatal if inhaled.
H351 - Suspected of causing cancer (Inhalation).
H372 - Causes damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

**Precautionary Statements (GHS-US/CA)** : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust, vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P284 - In case of inadequate ventilation wear respiratory protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P302+P352 - IF ON SKIN: Wash with plenty of water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P314 - Get medical advice/attention if you feel unwell.
P320 - Specific treatment is urgent (see section 4 on this SDS).
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

### 2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

### 3.2. Mixture

| Name | Synonyms | Product Identifier | % * | GHS Ingredient Classification |
|---|---|---|---|---|
| Cobalt lithium manganese nickel oxide | Lithium cobalt manganese nickel oxide<br>Cobalt lithium manganese nickel oxide (1:?:?:?:?)<br>Cobalt lithium nickel oxide | (CAS-No.) 182442-95-1 | 30 – 45 | Acute Tox. 2 (Inhalation), H330<br>Carc. 1B, H350<br>STOT RE 1, H372<br>Aquatic Chronic 3, H412 |
| Graphite | C.I. Pigment Black 10<br>C.I. 77265<br>graphite | (CAS-No.) 7782-42-5 | 15 – 25 | Combustible Dust |
| Copper | Copper, metallic<br>Pigment Metal 2<br>Copper metal<br>CI 77400<br>Copper, elemental<br>C.I. Pigment Metal 2<br>C.I. 77400<br>Granulated copper<br>copper<br>Copper, granulated | (CAS-No.) 7440-50-8 | 5 – 10 | Combustible Dust |
| Aluminum | Aluminium<br>Aluminium metal<br>Aluminium, metal<br>Aluminum metal<br>Aluminum, elemental<br>Aluminum, metal<br>C.I. 77000<br>CI 77000<br>Aluminium powder (stabilised)<br>Aluminium powder (stabilized)<br>Aluminium powder<br>Pigment Metal 1<br>Aluminum powder<br>Aluminium metal, powder<br>aluminum<br>Aluminum powder (pigment metal 1) | (CAS-No.) 7429-90-5 | 2 – 8 | Not classified. |

| | | | | |
|---|---|---|---|---|
| Styrene-butadiene copolymer | Styrene/butadiene copolymers<br>Polymer of styrene and 1,3-butadiene<br>Styrene-butadiene rubber<br>1,3 Butadiene/styrene copolymers<br>Styrene homopolymer and 1,3-butadiene homopolymer, block copolymer<br>Polymer of buta-1,3-diene/styrene<br>Polymer mainly composed of styrene/butadiene<br>Styrene-butadiene copolymers<br>Styrene-butadiene polymer<br>STYRENE/BUTADIENE COPOLYMER<br>Styrene-1,3-butadiene copolymer<br>Butadiene-styrene rubber<br>Butadiene-styrene resin<br>1,3-Butadiene-styrene polymer<br>Butadiene-styrene polymer<br>1,3-Butadiene-styrene copolymer<br>Butadiene-styrene copolymer<br>Benzene, ethenyl-, polymer with 1,3-butadiene | (CAS-No.)<br>9003-55-8 | 0.5 – 5 | Combustible Dust |
| Phosphate(1-), hexafluoro-, lithium | Lithium hexafluorophosphate(1-)<br>Lithium phosphohexafluoride<br>Phosphate(1-), hexafluoro-, lithium (1:1)<br>Lithium hexafluorophosphate | (CAS-No.)<br>21324-40-3 | 1 – 3 | Acute Tox. 3 (Oral), H301<br>Skin Corr. 1A, H314<br>Eye Dam. 1, H318<br>STOT RE 1, H372 |
| 1,1-Difluoroethylene polymer | Poly(1,1-difluoroethene)<br>POLYVINYLIDENE DIFLUORIDE<br>Vinylidene fluoride homopolymer<br>Polymer of 1,1-difluoroethene<br>PVDF<br>Poly(vinylidene fluoride)<br>Polyvinylidene fluoride resin<br>Polyvinylidene fluoride<br>Homopolymer, ethene, 1,1-difluoro-<br>Ethene, 1,1-difluoro-, homopolymer | (CAS-No.)<br>24937-79-9 | 0.1 – 2 | Combustible Dust |
| Carbon black | C.I. 77266<br>C.I. Pigment Black 6<br>C.I. Pigment Black 7<br>Lampblack<br>Vegetable carbon<br>Microjet Black CW<br>Pigment Black 7<br>Coal soot<br>Channel black<br>Bonjet Black CW<br>D and C Black No. 4<br>CARBON BLACK<br>D and C Black No. 2<br>Carbon Black<br>Acetylene black<br>CI 77266 | (CAS-No.)<br>1333-86-4 | 0.5 – 2 | Carc. 2, H351<br>Combustible Dust |

* The actual concentration of ingredient(s) is withheld as a trade secret in accordance with the Hazardous Products Regulations (HPR) SOR/2015-17 and 29 CFR 1910.1200. Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%). Full text of H-statements: see section 16.

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## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**General:** The following first aid measures apply in case of exposure to the interior battery components, if the battery is damaged and exposure occurs.

**Inhalation:** For exposure to battery contents: First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

**Skin Contact:** For exposure to battery contents: Immediately remove contaminated clothing. Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

**Eye Contact:** For exposure to battery contents: Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

**Ingestion:** For exposure to battery contents: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** Exposure to battery contents may result in the following: Causes skin irritation. Causes serious eye damage. May be fatal if inhaled. Suspected of causing cancer (Inhalation). Harmful if swallowed. Causes damage to organs through prolonged or repeated exposure.

**Inhalation:** Exposure to materials housed in battery: May be fatal if inhaled in significant amounts.

**Skin Contact:** Exposure to materials housed in battery: Causes skin irritation.

**Eye Contact:** Exposure to materials housed in battery: Causes permanent damage to the cornea, iris, or conjunctiva.

**Ingestion:** Exposure to materials housed in battery: This material is harmful orally and can cause adverse health effects.

**Chronic Symptoms:** Exposure to materials housed in battery: Causes damage to organs through prolonged or repeated exposure. Carbon black is classified under the IARC as 2B, “possibly carcinogenic to humans” and under ACGIH as A3 “confirmed animal carcinogen with unknown relevance to humans”.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Carbon dioxide (CO2). Dry chemical powder. Foam. Sand/earth. Water spray, fog (flooding amounts).

**Unsuitable Extinguishing Media:** Application of water to product may generate heat and increase fire intensity.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Battery may rupture/explode when exposed to excessive heat or fire, if overcharged, short circuited, punctured, or crushed.

**Reactivity:** Batteries are non-reactive under normal conditions of storage and use. If the internal contents are leaked lithium ion batteries may react with incompatible materials such as water, acids, bases, oxidizers, and reducing agents and form corrosive, irritating, and harmful fumes and by-products. If the battery is damaged, the interaction of water or water vapor and exposed lithium hexafluorophosphate may result in the generation of hydrogen and hydrogen fluoride (HF) gas.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Remove containers from fire area if this can be done without risk. Evacuate area. Fight fire remotely due to the risk of explosion.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products**: Carbon oxides (CO, $CO_2$). Hydrogen Fluoride (HF). Lithium oxides. Metal oxides. Phosphorus oxides.

**Other Information:** Batteries may explode in fire. Damaged batteries can result in rapid heating and the release of flammable vapors.

### 5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not handle until all safety precautions have been read and understood. Product itself under normal conditions of use is not considered hazardous, for materials housed within product: Do not breathe dust or fumes. Do not get in eyes, on skin, or on clothing.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. If battery is not damaged, cleanup spills mechanically and put into approved container for disposal. If battery is damaged and/or leaking: Using shovel or broom, cover battery or spilled substances with dry sand or vermiculite, place in approved container and dispose in accordance with local regulations. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Precautions for Safe Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Since this product is a sealed battery, normal handling hazards are minimal unless the battery is damaged or the internal contents are exposed. Do not get in eyes, on skin, or on clothing. Do not breathe dust, vapors, spray from inner battery components. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not short-circuit batteries as they may generate enough heat to ignite.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.

**Storage Conditions:** Batteries should be separated from other materials and stored in a noncombustible, well ventilated, sprinkler-protected structure with sufficient clearance between walls and battery stacks. Do not store batteries in a manner that allows terminals to short circuit. Do not place batteries near heating equipment, nor expose to direct sunlight for long periods. Store in a dry, cool place. Store locked up/in a secure area. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers. Water.

### 7.3. Specific End Use(s)

Lithium based battery product

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

| **Graphite (7782-42-5)** | | |
|---|---|---|
| **USA ACGIH** | ACGIH OEL TWA | 2 mg/m³ (all forms except graphite fibers-respirable particulate matter) |
| **USA OSHA** | OSHA PEL TWA | 15 mg/m³ (synthetic-total dust)<br>5 mg/m³ (synthetic-respirable fraction)<br>15 mppcf (natural-respirable dust) |
| **USA OSHA** | OSHA PEL TWA | 15 mppcf (natural)<br>(See 29 CFR 1910.1000 TABLE Z-3) |
| **USA NIOSH** | NIOSH REL (TWA) | 2.5 mg/m³ (natural-respirable dust) |
| **USA IDLH** | IDLH | 1250 mg/m³ (Graphite (natural)) |
| **Alberta** | OEL TWA | 2 mg/m³ (all forms except Graphite fibres-respirable) |
| **British Columbia** | OEL TWA | 2 mg/m³ (all forms except Graphite fibres-respirable) |
| **Manitoba** | OEL TWA | 2 mg/m³ (all forms except Graphite fibers-respirable particulate matter) |
| **New Brunswick** | OEL TWA | 2 mg/m³ (all forms except Graphite fibers-respirable fraction) |
| **Newfoundland & Labrador** | OEL TWA | 2 mg/m³ (all forms except Graphite fibers-respirable particulate matter) |
| **Nova Scotia** | OEL TWA | 2 mg/m³ (all forms except Graphite fibers-respirable particulate matter) |

| | | |
|---|---|---|
| **Nunavut** | OEL STEL | 4 mg/m³ (natural, all forms, except Graphite fibres-respirable fraction) |
| **Nunavut** | OEL TWA | 2 mg/m³ (natural, all forms, except Graphite fibres-respirable fraction) |
| **Northwest Territories** | OEL STEL | 4 mg/m³ (natural, all forms, except Graphite fibres-respirable fraction) |
| **Northwest Territories** | OEL TWA | 2 mg/m³ (natural, all forms, except Graphite fibres-respirable fraction) |
| **Ontario** | OEL TWAEV | 2 mg/m³ (except Graphite fibres-respirable particulate matter) |
| **Prince Edward Island** | OEL TWA | 2 mg/m³ (all forms except Graphite fibers-respirable particulate matter) |
| **Québec** | VEMP (OEL TWAEV) | 2 mg/m³ (containing no Asbestos and <1% Crystalline silica, except Graphite fibres-respirable dust) |
| **Saskatchewan** | OEL STEL | 4 mg/m³ (natural, except Graphite fibres-respirable fraction) |
| **Saskatchewan** | OEL TWA | 2 mg/m³ (natural, except Graphite fibres-respirable fraction) |
| **Yukon** | OEL TWA | 20 mppcf<br>30 mppcf (synthetic)<br>10 mg/m³ (synthetic) |

| **Copper (7440-50-8)** | | |
|---|---|---|
| **USA ACGIH** | ACGIH OEL TWA | 0.2 mg/m³ (fume) |
| **USA OSHA** | OSHA PEL TWA | 0.1 mg/m³ (fume)<br>1 mg/m³ (dust and mist) |
| **USA NIOSH** | NIOSH REL (TWA) | 1 mg/m³ (dust and mist)<br>0.1 mg/m³ (fume) |
| **USA IDLH** | IDLH | 100 mg/m³ (dust, fume and mist) |
| **Alberta** | OEL TWA | 0.2 mg/m³ (fume)<br>1 mg/m³ (dust and mist) |
| **British Columbia** | OEL TWA | 1 mg/m³ (dust and mist)<br>0.2 mg/m³ (fume) |
| **Manitoba** | OEL TWA | 0.2 mg/m³ (fume) |
| **New Brunswick** | OEL TWA | 0.2 mg/m³ (fume) |
| **Newfoundland & Labrador** | OEL TWA | 0.2 mg/m³ (fume) |
| **Nova Scotia** | OEL TWA | 0.2 mg/m³ (fume) |
| **Nunavut** | OEL STEL | 3 mg/m³ (dust and mist)<br>0.6 mg/m³ (fume) |
| **Nunavut** | OEL TWA | 0.2 mg/m³ (fume)<br>1 mg/m³ (dust and mist) |
| **Northwest Territories** | OEL STEL | 3 mg/m³ (dust and mist)<br>0.6 mg/m³ (fume) |
| **Northwest Territories** | OEL TWA | 0.2 mg/m³ (fume)<br>1 mg/m³ (dust and mist) |
| **Ontario** | OEL TWAEV | 0.2 mg/m³ (fume)<br>1 mg/m³ (dust and mist) |
| **Prince Edward Island** | OEL TWA | 0.2 mg/m³ (fume) |
| **Québec** | VEMP (OEL TWAEV) | 0.2 mg/m³ (fume)<br>1 mg/m³ (dust and mist) |
| **Saskatchewan** | OEL STEL | 0.6 mg/m³ (fume)<br>3 mg/m³ (dust and mist) |
| **Saskatchewan** | OEL TWA | 0.2 mg/m³ (fume)<br>1 mg/m³ (dust and mist) |
| **Yukon** | OEL STEL | 0.2 mg/m³ (fume)<br>2 mg/m³ (dust and mist) |
| **Yukon** | OEL TWA | 0.2 mg/m³ (fume)<br>1 mg/m³ (dust and mist) |

| **Aluminum (7429-90-5)** | | |
|---|---|---|
| **USA ACGIH** | ACGIH OEL TWA | 1 mg/m³ (respirable particulate matter) |
| **USA ACGIH** | ACGIH chemical category | Not Classifiable as a Human Carcinogen |

| | | |
|---|---|---|
| **USA OSHA** | OSHA PEL TWA | 15 mg/m³ (total dust)<br>5 mg/m³ (respirable fraction) |
| **USA NIOSH** | NIOSH REL (TWA) | 10 mg/m³ (total dust)<br>5 mg/m³ (respirable dust) |
| **Alberta** | OEL TWA | 10 mg/m³ (dust) |
| **British Columbia** | OEL TWA | 1 mg/m³ (respirable) |
| **Manitoba** | OEL TWA | 1 mg/m³ (respirable particulate matter) |
| **New Brunswick** | OEL TWA | 1 mg/m³ (respirable fraction) |
| **Newfoundland & Labrador** | OEL TWA | 1 mg/m³ (respirable particulate matter) |
| **Nova Scotia** | OEL TWA | 1 mg/m³ (respirable particulate matter) |
| **Nunavut** | OEL STEL | 20 mg/m³ (metal-dust) |
| **Nunavut** | OEL TWA | 10 mg/m³ (metal-dust) |
| **Northwest Territories** | OEL STEL | 20 mg/m³ (metal-dust) |
| **Northwest Territories** | OEL TWA | 10 mg/m³ (metal-dust) |
| **Ontario** | OEL TWAEV | 1 mg/m³ (respirable particulate matter) |
| **Prince Edward Island** | OEL TWA | 1 mg/m³ (respirable particulate matter) |
| **Québec** | VEMP (OEL TWAEV) | 10 mg/m³ |
| **Saskatchewan** | OEL STEL | 20 mg/m³ (dust) |
| **Saskatchewan** | OEL TWA | 10 mg/m³ (dust) |

| **Carbon black (1333-86-4)** | | |
|---|---|---|
| **USA ACGIH** | ACGIH OEL TWA | 3 mg/m³ (inhalable particulate matter) |
| **USA ACGIH** | ACGIH chemical category | Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| **USA OSHA** | OSHA PEL TWA | 3.5 mg/m³ |
| **USA NIOSH** | NIOSH REL (TWA) | 3.5 mg/m³<br>0.1 mg/m³ (Carbon black in presence of Polycyclic aromatic hydrocarbons) |
| **USA IDLH** | IDLH | 1750 mg/m³ |
| **Alberta** | OEL TWA | 3.5 mg/m³ |
| **British Columbia** | OEL TWA | 3 mg/m³ (inhalable) |
| **Manitoba** | OEL TWA | 3 mg/m³ (inhalable particulate matter) |
| **New Brunswick** | OEL TWA | 3 mg/m³ (inhalable fraction) |
| **Newfoundland & Labrador** | OEL TWA | 3 mg/m³ (inhalable particulate matter) |
| **Nova Scotia** | OEL TWA | 3 mg/m³ (inhalable particulate matter) |
| **Nunavut** | OEL STEL | 7 mg/m³ |
| **Nunavut** | OEL TWA | 3.5 mg/m³ |
| **Northwest Territories** | OEL STEL | 7 mg/m³ |
| **Northwest Territories** | OEL TWA | 3.5 mg/m³ |
| **Ontario** | OEL TWAEV | 3 mg/m³ (inhalable particulate matter) |
| **Prince Edward Island** | OEL TWA | 3 mg/m³ (inhalable particulate matter) |
| **Québec** | VEMP (OEL TWAEV) | 3 mg/m³ (inhalable dust) |
| **Saskatchewan** | OEL STEL | 7 mg/m³ |
| **Saskatchewan** | OEL TWA | 3.5 mg/m³ |
| **Yukon** | OEL STEL | 7 mg/m³ |
| **Yukon** | OEL TWA | 3.5 mg/m³ |

### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Gas detectors should be used when toxic gases may be released.

**Personal Protective Equipment:** Not required under normal conditions of use. When handling damaged batteries: Gloves. Protective clothing. Protective goggles. Face shield. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics. Corrosion-proof clothing.
**Hand Protection:**
**Eye and Face Protection:**
**Skin and Body Protection:**
**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

| | | |
|---|---|---|
| **Physical State** | : | Solid |
| **Appearance** | : | No data available |
| **Odor** | : | Odorless |
| **Odor Threshold** | : | No data available |
| **pH** | : | No data available |
| **Evaporation Rate** | : | No data available |
| **Melting Point** | : | No data available |
| **Freezing Point** | : | No data available |
| **Boiling Point** | : | No data available |
| **Flash Point** | : | No data available |
| **Auto-ignition Temperature** | : | 130 °C (266 °F) |
| **Decomposition Temperature** | : | No data available |
| **Flammability (solid, gas)** | : | No data available |
| **Lower Flammable Limit** | : | No data available |
| **Upper Flammable Limit** | : | No data available |
| **Vapor Pressure** | : | No data available |
| **Relative Vapor Density at 20°C** | : | No data available |
| **Relative Density** | : | No data available |
| **Specific Gravity** | : | No data available |
| **Solubility** | : | Water: Insoluble |
| **Partition Coefficient: N-Octanol/Water** | : | No data available |
| **Viscosity** | : | No data available |
| **Voltage** | : | 3.6 - 10.8 V |
| **Watt Hour Rating** | : | 3.06 - 25.2 Wh per battery |

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity:

Batteries are non-reactive under normal conditions of storage and use. If the internal contents are leaked lithium ion batteries may react with incompatible materials such as water, acids, bases, oxidizers, and reducing agents and form corrosive, irritating, and harmful fumes and by-products. If the battery is damaged, the interaction of water or water vapor and exposed lithium hexafluorophosphate may result in the generation of hydrogen and hydrogen fluoride (HF) gas.

### 10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

### 10.4. Conditions to Avoid:

Do not heat, expose to fire, disassemble, short circuit, immerse in water, or abuse batteries.

### 10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers. Water.

### 10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Hydrogen Fluoride, Carbon oxides, Lithium oxides, Metal oxides, Phosphorus oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

**Acute Toxicity (Oral):** Harmful if swallowed.

**Acute Toxicity (Dermal):** Not classified.

**Acute Toxicity (Inhalation):** Inhalation:dust,mist: Fatal if inhaled.

**LD50 and LC50 Data:**

| **Lithium Ion Battery in/with Clipper/Shaver/Trimmer/Nail Grinder/Massager** | |
|---|---|
| **ATE US/CA (oral)** | ≈1670 mg/kg body weight |
| **ATE US/CA (dust, mist)** | ≈ 0.11 mg/l/4h |

**Skin Corrosion/Irritation:** Causes skin irritation.

**Eye Damage/Irritation:** Causes serious eye damage.

**Respiratory or Skin Sensitization:** Not classified.

**Germ Cell Mutagenicity:** Not classified.

**Carcinogenicity:** Suspected of causing cancer (Inhalation).

**Specific Target Organ Toxicity (Repeated Exposure):** Causes damage to organs through prolonged or repeated exposure.

**Reproductive Toxicity:** Not classified.

**Specific Target Organ Toxicity (Single Exposure):** Not classified.

**Aspiration Hazard:** Not classified.

**Symptoms/Injuries After Inhalation:** Exposure to materials housed in battery: May be fatal if inhaled in significant amounts.

**Symptoms/Injuries After Skin Contact:** Exposure to materials housed in battery: Causes skin irritation.

**Symptoms/Injuries After Eye Contact:** Exposure to materials housed in battery: Causes permanent damage to the cornea, iris, or conjunctiva.

**Symptoms/Injuries After Ingestion:** Exposure to materials housed in battery: This material is harmful orally and can cause adverse health effects.

**Chronic Symptoms:** Exposure to materials housed in battery: Causes damage to organs through prolonged or repeated exposure. Carbon black is classified under the IARC as 2B, “possibly carcinogenic to humans” and under ACGIH as A3 “confirmed animal carcinogen with unknown relevance to humans”.

**Other information**: Exposure to the internal contents of the battery may result in:

### 11.2. Information on Toxicological Effects - Ingredient(s)

**LD50 and LC50 Data:**

| **Graphite (7782-42-5)** | |
|---|---|
| **LD50 Oral Rat** | > 2000 mg/kg |
| **LC50 Inhalation Rat** | > 2000 mg/m³ (Exposure time: 4 h) |
| **Copper (7440-50-8)** | |
| **LC50 Inhalation Rat** | > 5.11 mg/l/4h |
| **Aluminum (7429-90-5)** | |
| **LC50 Inhalation Rat** | > 0.888 mg/L/4h (No deaths) |
| **Cobalt lithium manganese nickel oxide (182442-95-1)** | |
| **ATE US/CA (gas)** | 100.00 ppmV/4h |
| **ATE US/CA (vapors)** | 0.50 mg/l/4h |
| **ATE US/CA (dust, mist)** | 0.05 mg/l/4h |
| **Carbon black (1333-86-4)** | |
| **LD50 Oral Rat** | > 8000 mg/kg |
| **LC50 Inhalation Rat** | > 4.6 mg/m³ (Exposure time: 4 h) |
| **Phosphate(1-), hexafluoro-, lithium (21324-40-3)** | |
| **LD50 Oral Rat** | 50 – 300 mg/kg |
| **Carbon black (1333-86-4)** | |
| **IARC Group** | 2B |
| **OSHA Hazard Communication Carcinogen List** | In OSHA Hazard Communication Carcinogen list. |
| **Styrene-butadiene copolymer (9003-55-8)** | |
| **IARC Group** | 3 |

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General:** Harmful to aquatic life with long lasting effects.

| **Graphite (7782-42-5)** | |
|---|---|
| **LC50 Fish 1** | > 100 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static]) |
| **EC50 - Crustacea [1]** | > 100 mg/l (Exposure time: 48 h - Species: Daphnia magna [static]) |
| **ErC50 algae** | > 100 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [static]) |
| **NOEC Chronic Fish** | > 100 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static]) |
| **NOEC Chronic Crustacea** | > 100 mg/l (Exposure time: 48 h - Species: Daphnia magna [static]) |
| **NOEC Chronic Algae** | > 100 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [static]) |

| **Copper (7440-50-8)** | |
|---|---|
| **LC50 Fish 1** | 0.0068 – 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas Source: EPA) |
| **EC50 - Crustacea [1]** | 0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) |
| **LC50 Fish 2** | < 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA) |

| **Carbon black (1333-86-4)** | |
|---|---|
| **EC50 - Crustacea [1]** | 5600 mg/l (Exposure time: 24 h - Species: Daphnia magna) |

### 12.2. Persistence and Degradability

| **Lithium Ion Battery in/with Clipper/Shaver/Trimmer/Nail Grinder/Massager** | |
|---|---|
| **Persistence and Degradability** | May cause long-term adverse effects in the environment. |

| **Copper (7440-50-8)** | |
|---|---|
| **Persistence and Degradability** | Not readily biodegradable. |

### 12.3. Bioaccumulative Potential

| **Lithium Ion Battery in/with Clipper/Shaver/Trimmer/Nail Grinder/Massager** | |
|---|---|
| **Bioaccumulative Potential** | Not established. |

### 12.4. Mobility in Soil

No additional information available

### 12.5. Other Adverse Effects

**Other Information:** Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Material should be recycled if possible. Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

**Additional Information:** Batteries should be completely discharged prior to disposal and/or the terminals taped or capped to prevent short circuit.

**Ecology - Waste Materials:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways. Avoid release to the environment.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

### 14.1. In Accordance with DOT

**Proper Shipping Name** : LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT
LITHIUM ION BATTERIES PACKED WITH EQUIPMENT



**Identification Number** : UN3481 in accordance with SP188

**ERG Number** : 147

### 14.2. In Accordance with IMDG

**Proper Shipping Name** : LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT
LITHIUM ION BATTERIES PACKED WITH EQUIPMENT



**Identification Number** : UN3481 in accordance with SP188

**EmS-No. (Fire)** : F-A

**EmS-No. (Spillage)** : S-I

### 14.3. In Accordance with IATA

**Proper Shipping Name** : LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT
LITHIUM ION BATTERIES PACKED WITH EQUIPMENT



**Identification Number** : UN3481

**ERG Code (IATA)** : 12FZ

### 14.4. In Accordance with TDG

**Proper Shipping Name** : LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT
LITHIUM ION BATTERIES PACKED WITH EQUIPMENT



**Identification Number** : UN3481

*This battery has passed the test requirements according to the UN Manual of Tests and Criteria Part III, Subsection 38.3.*

## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

| **Lithium Ion Battery in/with Clipper/Shaver/Trimmer/Nail Grinder/Massager** | |
|---|---|
| **SARA Section 311/312 Hazard Classes** | Health hazard - Carcinogenicity<br>Health hazard - Specific target organ toxicity (single or repeated exposure)<br>Health hazard - Acute toxicity (any route of exposure)<br>Health hazard - Serious eye damage or eye irritation<br>Health hazard - Skin corrosion or Irritation |

| **Graphite (7782-42-5)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active |

| **Copper (7440-50-8)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active<br>Subject to reporting requirements of United States SARA Section 313 | |
| **CERCLA RQ** | 5000 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm |
| **SARA Section 313 - Emission Reporting** | 1 % |

| **Aluminum (7429-90-5)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active<br>Subject to reporting requirements of United States SARA Section 313 | |
| **SARA Section 313 - Emission Reporting** | 1 % (dust or fume only) |

| **1,1-Difluoroethylene polymer (24937-79-9)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| **EPA TSCA Regulatory Flag** | XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |

| **Cobalt lithium manganese nickel oxide (182442-95-1)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| **EPA TSCA Regulatory Flag** | PMN - PMN - indicates a commenced PMN substance.<br>S - S - indicates a substance that is identified in a final Significant New Use Rule.<br>5E - 5E - indicates a substance that is the subject of a TSCA section 5E order. |

| **Carbon black (1333-86-4)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active |

| **Styrene-butadiene copolymer (9003-55-8)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| **EPA TSCA Regulatory Flag** | XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |

| **Phosphate(1-), hexafluoro-, lithium (21324-40-3)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| **EPA TSCA Regulatory Flag** | PMN - PMN - indicates a commenced PMN substance. |

### 15.2. US State Regulations

**State or local regulations**

**California Proposition 65**

**WARNING:** This product can expose you to Carbon black, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

| Chemical Name (CAS No.) | Carcinogenicity | Developmental Toxicity | Female Reproductive Toxicity | Male Reproductive Toxicity |
|---|---|---|---|---|
| Carbon black (1333-86-4) | X | | | |

| **Graphite (7782-42-5)** |
|---|
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) List |
| U.S. - Massachusetts - Right To Know List |

| **Copper (7440-50-8)** |
|---|
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) List |
| U.S. - Massachusetts - Right To Know List |
| U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List |

| **Aluminum (7429-90-5)** |
|---|
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) List |
| U.S. - Massachusetts - Right To Know List |
| U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List |

| **Carbon black (1333-86-4)** |
|---|
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) List |
| U.S. - Massachusetts - Right To Know List |

### 15.3. Canadian Regulations

| **Graphite (7782-42-5)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **Copper (7440-50-8)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **Aluminum (7429-90-5)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **1,1-Difluoroethylene polymer (24937-79-9)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **Cobalt lithium manganese nickel oxide (182442-95-1)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **Carbon black (1333-86-4)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **Styrene-butadiene copolymer (9003-55-8)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **Phosphate(1-), hexafluoro-, lithium (21324-40-3)** |
|---|
| Listed on the Canadian NDSL (Non-Domestic Substances List) |

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest Revision** : 12/09/2024

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

**GHS Full Text Phrases:**

| | |
|---|---|
| H301 | Toxic if swallowed |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H330 | Fatal if inhaled |
| H350 | May cause cancer |
| H351 | Suspected of causing cancer |
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H412 | Harmful to aquatic life with long lasting effects |

**Glossary of Data Source Abbreviations**

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)
AU_WES: Australia WES
CHEMVIEW: ChemView (U.S. Environmental Protection Agency)
EC_RAR: European Commission Renewal Assessment Report
EC_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits
ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports
ECHA_API: European Chemicals Agency API
ECHA_RAC: ECHA Committee for Risk Assessment
EFSA: European Food Safety Authority
EPA: U.S. Environmental Protection Agency
EPA_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)
EPA_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)
EPA_HPV: High Production Volume Chemicals (U.S. Environmental Protection Agency)
EPA_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)
EU_CLH: European Union Harmonised Classification and Labelling Proposal
EU_RAR: European Union Risk Assessment Report
FOOD_JOURN: Food Research Journal (1956)
IARC: The International Agency for Research on Cancer
IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles
IUCLID: International Uniform Chemical Information Database
JAPAN_GHS: Japan GHS Basis for Classification Data
JP_J-CHECK: Japan J-Check
KR_NIER: South Korea National Institute of Environmental Research Evaluations
NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme
NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)
NLM_CIP: National Library of Medicine ChemID plus database
NLM_HSDB: National Library of Medicine Hazardous Substance Data Bank
NLM_PUBMED: National Library of Medicine PubMed database
NTP: National Toxicology Program
NZ_CCID: New Zealand Chemical Classification and Information Database
OECD_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)
OECD_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)
WHO: World Health Organization

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

NA GHS SDS 2015 (Can, US)