

# Round Rock Fire Department Cost Recovery

Invoice Number:

Invoice Date :

Report Number: 2403220004

Incident Date: 3/22/2024

Incident Address: 1300 Louis Henna Blvd

	US \$
Apparatus Fee	\$ 6,864.42
Equipment Fee	\$ -
Protective Equipment Fees	\$ -
Materials Fee	\$ -
Chemicals Fee	\$ -
Consumables Fee	\$ -
Personnel Fees	\$ 5,186.10
Apparatus/Equipment/Protective Equipment Replacement	\$ 235,892.00
<b>Total Cost of Haz-Mat Call</b>	<b>\$ 247,942.52</b>









# Round Rock Fire Department Cost Recovery

REPORT NUMBER:

2403220004

INCIDENT ADDRESS:

1300 Louis Henna Blvd

PERSONNEL ON SCENE				
Name of Fire Fighter		RATE	HOURS	TOTAL
Batenhorst, Patrick (E3)		\$ 32.00	2.5	\$ 80.00
Bonney, Joshua (E5)		\$ 39.82	2.5	\$ 99.55
Briggs, Jared (E4)		\$ 26.35	4.25	\$ 111.99
Brown, Kyle (TK3)		\$ 23.29	4	\$ 93.16
Campbell, Aaron (TK3)		\$ 47.65	4	\$ 190.60
Classen, Trent (RSC2)		\$ 39.82	1.25	\$ 49.78
Closs, Cole (E5)		\$ 36.20	2.5	\$ 90.50
Colburn, William (BATT2)		\$ 48.19	4.5	\$ 216.86
Contreras, Roger (E4)		\$ 23.29	4.25	\$ 98.98
Dandrea, Ryan (SQD2)		\$ 26.35	2	\$ 52.70
Davidson, Johnny (Q9)		\$ 43.81	0.75	\$ 32.86
Diamond, Michael (E3)		\$ 23.29	2.5	\$ 58.23
Goosard, James (BATT2)		\$ 48.19	4.65	\$ 224.08
Hamilton, Ryan (E5)		\$ 39.82	2.5	\$ 99.55
Hirsch, Troy (TK7)		\$ 43.81	4.65	\$ 203.72
Hosch, Chad (TK7)		\$ 36.20	4.65	\$ 168.33
Johnson, Adam (E3)		\$ 33.50	2.5	\$ 83.75
Kellenberger, Robert (LAD8)		\$ 36.20	4	\$ 144.80
Kinchloe, Dennis (PREV)		\$ 69.19	3.75	\$ 259.46
Kondoff, Jerik (RSC2)		\$ 27.01	1.25	\$ 33.76
Lincoln, Brandon (LAD8)		\$ 43.81	4	\$ 175.24
Llorento, Nicholas (LAD8)		\$ 23.29	4	\$ 93.16
Loessin, Kelly (TK3)		\$ 36.20	4	\$ 144.80
Luechtefeld, Calyssa (Q9)		\$ 23.87	0.75	\$ 17.90
Lyman, Drew (TK3)		\$ 39.82	4	\$ 159.28
Martindale, Scott (TK3)		\$ 29.82	4	\$ 119.28
Mikulencak, Shane (E5)		\$ 36.20	2.5	\$ 90.50
Nichols, Nolan (SQD2)		\$ 43.81	2	\$ 87.62
O'Sail, Daniel (E4)		\$ 45.59	4.25	\$ 193.76
Papenhausen, Charles (PREV)		\$ 43.47	3.75	\$ 163.01
Patenaude, John (E4)		\$ 31.22	4.25	\$ 132.69
Rago, Richard (BATT1)		\$ 48.19	2	\$ 96.38
Roberts, Kyle (E5)		\$ 27.01	2.5	\$ 67.53
Rodriguez, Jaime (E6)		\$ 39.82	1.75	\$ 69.69
Santiago, Hector (E6)		\$ 29.09	1.75	\$ 50.91
Schmidt, Kenneth (HAZMAT6)		\$ 28.38	3.75	\$ 106.43
Silva, Bradley (E6)		\$ 35.32	1.75	\$ 61.81
Simmons, Ray (E4)		\$ 26.35	4.25	\$ 111.99
Simpson, Austin (E5)		\$ 25.08	2.5	\$ 62.70
Sittre, Karl (TK3)		\$ 43.81	4	\$ 175.24
Smischney, Troy (E4)		\$ 37.90	4.25	\$ 161.08
Stogner, Charles (TK7)		\$ 25.08	4.65	\$ 116.62
Strickland, Brandon (HAZMAT6)		\$ 29.71	3.75	\$ 111.41
Tanzer, Matthew (HAZMAT6)		\$ 32.00	3.75	\$ 120.00
Virgne, Ricky (PREV)		\$ 43.81	1	\$ 43.81
Wade, Jimmy (RSC2)		\$ 29.71	1.25	\$ 37.14
Wilkins, John (Q9)		\$ 31.33	0.75	\$ 23.50
<b>TOTAL</b>				<b>\$ 5,186.10</b>



# Round Rock Fire Department Cost Recovery

\*\*\* Charge-Out - Equipment Destroyed in use on Incident, need to be replaced. Charge out at current market prices

APPARATUS			
Replacement of Apparatus	REPLACEMENT COST***	QUANTITY	TOTAL
Staff Vehicle			\$ -
Command Unit (BC)			\$ -
Hazmat Apparatus			\$ -
Support Truck (Logistics)			\$ -
Tender			\$ -
Heavy Rescue Truck			\$ -
Engine			\$ -
Quint/Aerial			\$ -
Ambulance/EMS Unit			\$ -
Ambulance Stand-by Charge			\$ -
Hazmat Mobile Lab Unit			\$ -
			\$ -
			\$ -
		<b>TOTAL</b>	\$ -

EQUIPMENT			
Replacement of Equipment	REPLACEMENT COST***	QUANTITY	TOTAL
Co2 Extinguisher			\$ -
Dry Chemical Extinguisher			\$ -
A&E Plug Kit			\$ -
Tripod			\$ -
Drum Dolly			\$ -
Multi-Rae Lite			\$ -
Mini Rae 3000			\$ -
MSA Altair 5X			\$ -
MSA Altair 4X			\$ -
AreaRae Pro (with secure server safety)			\$ -
Sensit Gold			\$ -
Temp Gun			\$ -
Generator			\$ -
Area Rae			\$ -
PPV Fan			\$ -
Spreaders			\$ -
Cutters			\$ -
SCBA - MSA-444MA2C2LCR, G1 (without Thermal imaging)	\$ 5,765.00	9	\$ 51,885.00
SCBA - MSA-444MA2C0LGR, G1 with iTIC (with Thermal imaging)	\$ 6,238.50	6	\$ 37,431.00
Portable Tank Cylinder 4500 psi	\$ 1,299.00	30	\$ 38,970.00
Extendaire II System Conversion Kit (need so all units matched)	\$ 880.00	107	\$ 94,160.00
Light Tower			\$ -
Thermal Imager			\$ -
Milwaukee Drill			\$ -
Impact Driver			\$ -
1 & 3/4 Hose			\$ -
			\$ -
		<b>TOTAL</b>	\$ 222,446.00

## PROTECTIVE EQUIPMENT

Replacement of Personal Protection Equipment	REPLACEMENT COST***	QUANTITY	TOTAL
Tyvec Coveralls			\$ -
Level B Suit			\$ -
Level A Suit			\$ -
Neoprene Gloves			\$ -
Butyl Gloves			\$ -
Nitrile Gloves			\$ -
Medical Gloves - Per Box			\$ -
Overboots			\$ -
Disposable Goggles			\$ -
Helmet			\$ -
Innotex Hood	\$ 126.00	15	\$ 1,890.00
MSA-FM1M4C1, G1, facepiece	\$ 267.00	15	\$ 4,005.00
Bunker Gear Cleaning (Inv 33968)			\$ 2,813.25
Bunker Pants			\$ -
Bunker Boots			\$ -
Structure Gloves	\$ 118.25	15	\$ 1,773.75
Chemical Boots			\$ -
Ear Plugs			\$ -
Haz-Mat Jump Suit			\$ -
Bail Out Systems	\$ 494.00	6	\$ 2,964.00
			\$ -
			\$ -
			\$ -
			\$ -
<b>TOTAL</b>			<b>\$ 13,446.00</b>

<b>Total of all Replacements</b>	<b>\$ 235,892.00</b>
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# CITY OF ROUND ROCK INCIDENT REPORT FORM



All accidents, incidents, near-misses and unusual events involving: employees, citizens, City/private property damage or loss, must be reported promptly to your immediate supervisor and to the Safety/Risk Management Division. All motor vehicle accidents and vandalism involving City property must also be reported to the Police Dept. All sections of this incident report must be completed and signed, as applicable, by the employee and supervisor and forwarded to Safety/Risk Management by the next business day.

All statements made in this report must be truthful. Any employee who intentionally files an incomplete, inaccurate, or false report will be subject to disciplinary action, up to and including termination.

**Employee reporting the incident: Completes Sections 1 – 5b and 7.**

**Supervisor/Investigator: Completes Sections 5c - 6.**

Name: Ryan Hamilton; Cole Closs; Kyle Roberts				Dept.: Fire		Job Title: Firefighter	
<b>Section 2: Incident Type</b>							
Date of Incident: <u>March 22<sup>nd</sup>, 2024</u>		Time of Incident: <u>0531</u>		Date Reported: <u>03/22/2024</u>			
<input type="checkbox"/> Motor Vehicle		<input type="checkbox"/> City Property Loss/Damage		<input type="checkbox"/> Employee Injury/Illness			
<input type="checkbox"/> Mobile Equipment		<input type="checkbox"/> Private Property Loss/Damage		<input checked="" type="checkbox"/> Exposure			
<input type="checkbox"/> Near Miss		<input type="checkbox"/> Theft/Vandalism of City Property					
<input type="checkbox"/> Citizen Injury/Illness		<input type="checkbox"/> Other _____					
<b>Section 3: Medical Information Employee/Citizen</b>							
Type of Injury/Illness: _____				Part of Body Injured: _____			
Any Medical Attention? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If Yes, supply doctor's report/statement)</i>				Treatment Date: _____			
Doctor's Name: _____				Treatment Facility: _____			
Address: _____		City: _____		State: _____		Zip: _____	
Time Off Given By Doctor? Y/N _____							
Light Duty Given? Y/N _____							
Return To Duty? Y/N _____							
<b>Section 4: Citizen Information</b>							
<b>Complete This Section On All Private Property Loss/Damage and Injured Citizens:</b>							
<input type="checkbox"/> Private Property Loss/Damage							
Name of Private Party: _____				Phone #: _____			
Mailing Address: _____							
City/State/Zip: _____							
Insurance Company: _____				Phone #: _____			
Policy Number: _____				Date: _____			
Vehicle Make: _____				Vehicle Model: _____			

**Section 5: Incident Information**

Location of Incident/Accident: In open storage area of Sabey Data Center  
(Give General Location: stairs, yard, street, park, etc.)  
Address: 1300 Louis Henna Blvd  
City/State/Zip: Round Rock, Texas 78664

**5a. Why Incident/Accident Occurred? (Explain)**  
A fire was reported in a battery pack containing Nickel Zinc batteries. The type of batteries and their quantity along with appropriate firefighting measures were unclear at the time of initial response. Details regarding the appropriate measures and precautions were not ascertained until after the incidents initial mitigation and further expounded after the incident conclusion. Due to odor of the involved material throughout the scene Exposure to the involved materials cannot be ruled out for the listed individuals in this report.  
An SDS is attached in reference to these batteries.  
The batteries contained the following materials:  
Nickel Hydroxide, Potassium Hydroxide, Lithium Hydroxide, Nickel (Powder), Cobalt, Steel  
  
Fire Conditions yield the following byproducts:  
Nickel/Nickel Oxides, Cobalt/Cobalt Oxides, Zinc/zinc oxides, Lithium Oxides, Potassium Oxides

**5b. Witnesses:**

**THE FOLLOWING BLOCKS MUST BE FILLED OUT BY THE SUPERVISOR/INVESTIGATOR.**

**5c. Were All Safety Procedures Followed? (Explain)**  Yes  No  
Personnel inside the area of the fire utilized SCBA and bunker gear as policy dictates. Personnel who were in the exposure zone, but outside of the visible smoke plume, were unprotected as is common practice at fire incidents.

**5d. Could This Incident/Accident Have Been Prevented? (Explain)**  Yes  No  
An unconventional strategy of non-intervention could have been used upon perceiving the hazardous nature of the product on fire. Firefighting measures could have been performed using a hazardous materials entry approach. Such strategies would possibly lead to further property damage, bystander endangerment, and increased time to incident mitigation.

**5e. State Corrective / Preventative Actions To Be Taken:**  
A post-incident review is being developed for this incident to help identify best practices for similar incidents.

**Section 6: Investigator Information**

Incident investigated by name and title:  
Investigator signature: Investigation date:

Employee Signature: Date:  
Supervisor Name: Matthew Tanzer Title: Driver  
Supervisor Signature:  Date: 3/24/2024

Lost Time Dates: Light Duty Dates:

Date for follow up: Safety/Risk Management comments:



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**Employee reporting the incident: Completes Sections 1 – 5b and 7.**

**Supervisor/Investigator: Completes Sections 5c - 6.**

Name:

Dennis Kincheloe  
Ricky Virgne  
Charles Papenhausen  
William Colburn  
James Gossard  
Richard Rago  
Joshua Bonney  
Shane Mikulencak  
Austin Simpson  
Johnny Davidson  
John Wilkins  
Calyssa Luechtefeld  
Nolan Nichols  
Ryan Dandrea  
Grady Fowles  
Zachary Brehm  
Collin Sanderson  
Trent Classen  
Jimmy Wade  
Jerik Kondoff  
Steven Crew  
Ryan Mattei  
Brandon Lincoln  
Robert Kellenberger  
Nicholas Llorente  
Drew Lyman  
Kelly Loessin  
Scott Martindale  
Karl Sittre  
Kyle Brown  
Aaron Campbell  
Bill Fritzinger  
Eric Carrasco  
Jaime Rodriguez  
Hector Santiago  
Bradley Silva

John Patenaude  
Daniel O'sail  
Ray Simmons  
Jared Briggs  
Roger Contreras  
Troy Smischney  
Brandon Strickland  
Matthew Tanzer  
Kenneth Schmidt

Dept.: Fire

Job Title: Firefighter

**Section 2: Incident Type**

Date of Incident: March 22<sup>nd</sup>, 2024 Time of Incident: 0531 Date Reported: 03/22/2024  
 Motor Vehicle  City Property Loss/Damage  Employee Injury/Illness  
 Mobile Equipment  Private Property Loss/Damage  **Exposure**  
 Near Miss  Theft/Vandalism of City Property  
 Citizen Injury/Illness  Other \_\_\_\_\_

**Section 3: Medical Information Employee/Citizen**

Type of Injury/Illness: \_\_\_\_\_ Part of Body Injured: \_\_\_\_\_  
Any Medical Attention?  Yes  No Treatment Date: \_\_\_\_\_  
*(If Yes, supply doctor's report/statement)*  
Doctor's Name: \_\_\_\_\_ Treatment Facility: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Time Off Given By Doctor? Y/N  
Light Duty Given? Y/N  
Return To Duty? Y/N

**Section 4: Citizen Information**

**Complete This Section On All Private Property Loss/Damage and Injured Citizens:**

Private Property Loss/Damage  
Name of Private Party: \_\_\_\_\_ Phone #: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Insurance Company \_\_\_\_\_ Phone #: \_\_\_\_\_  
Policy Number: \_\_\_\_\_ Date: \_\_\_\_\_  
Vehicle Make: \_\_\_\_\_ Vehicle Model: \_\_\_\_\_  
Model Year: \_\_\_\_\_ License Plate Number: \_\_\_\_\_

**Section 5: Incident Information**

Location of Incident/Accident:  
(Give General Location: stairs, yard, street, park, etc.) In open storage area of Sabey Data Center  
Address: 1300 Louis Henna Blvd  
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Fire Conditions yield the following byproducts: Nickel/Nickel Oxides, Cobalt/Cobalt Oxides, Zinc/zinc oxides, Lithium Oxides, Potassium Oxides

**5b. Witnesses:**

**THE FOLLOWING BLOCKS MUST BE FILLED OUT BY THE SUPERVISOR/INVESTIGATOR.**

**5c. Were All Safety Procedures Followed? (Explain)  Yes  No**

Personnel inside the area of the fire utilized SCBA and bunker gear as policy dictates. Personnel who were in the exposure zone, but outside of the visible smoke plume, were unprotected as is common practice at fire incidents.

**5d. Could This Incident/Accident Have Been Prevented? (Explain)  Yes  No**

An unconventional strategy of non-intervention could have been used upon perceiving the hazardous nature of the product on fire. Firefighting measures could have been performed using a hazardous materials entry approach. Such strategies would possibly lead to further property damage, bystander endangerment, and increased time to incident mitigation.

**5e. State Corrective / Preventative Actions To Be Taken:**

A post-incident review is being developed for this incident to help identify best practices for similar incidents.

**Section 6: Investigator Information**

Incident investigated by name and title:  
Investigator signature: \_\_\_\_\_ Investigation date: \_\_\_\_\_

Employee Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Supervisor Name: Matthew Tanzer Title: Driver

Supervisor Signature:  Date: March 22nd, 2024

Lost Time Dates: \_\_\_\_\_ Light Duty Dates: \_\_\_\_\_

Date for follow up: \_\_\_\_\_ Safety/Risk Management comments: \_\_\_\_\_

Safety/Risk Management Reviewer Name	Signature	Date

**CITY OF ROUND ROCK  
INCIDENT REPORT  
SUPPLEMENTAL INFORMATION**

Employee Name:	_____
Date of Incident:	_____

<b>Section 7: Supplemental Information</b>
<b>Asset number:</b> <b>Asset/equipment or property description:</b>

**Acknowledgment:** My signature on this statement is verification of my truthful and fully factual account of the incident/event. I acknowledge that failure to tell the truth may subject me to disciplinary action, up to and including termination. I acknowledge that all provided statements may be considered sworn statements.

Employee Signature:  Date: March 22nd, 2024



## CITY OF ROUND ROCK INCIDENT REPORT CHECKLIST

Please ensure that the following critical elements are completed on the report, and relevant documents, such as police reports, medical statements, employee statements, duty status slips, etc., are submitted to Safety/Risk Management. **Please email or fax an initial report the next business day, followed by the original report through interoffice mail.**

**Please ensure all of the following are included in the incident report:**

- Personal Information.
- Date/time of incident/accident, reporting date to supervisor, medical attention date and information.
- Asset number and descriptions, etc.
- Detailed information to include location, how incident/accident occurred, witnesses, prevention, etc.
- Photos of the accident or incident.
- Supervisor statements and accident investigation findings.
- Attach supplemental report if necessary.
- Incident report must be signed by the involved employee, supervisor and Safety/Risk Management staff.
- Attach all medical documentation.

**Important:**

***All incidents and accidents must be investigated! For your assistance, an accident investigation checklist is available on Employee Net under HR forms.***



# SAFETY DATA SHEET

## Section 1: Identification

**Product Name:** Nickel Zinc Battery (Cell) Sizes: Sub-C and Prismatic

**Chemical Name/Synonyms:** None

**Identified uses:** Power storage

**Company:** ZincFive (dba PowerGenix in China)

**Address:** 20170 SW 112th Avenue Tualatin, OR 97062

**Telephone:** 001 503-399-3517

**Emergency Phone number:** 001 503-399-3517 (Within USA call 911)

**For information about this SDS, use this department contact phone#:** 503.399.3517

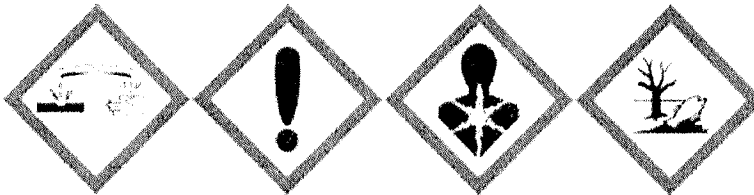
## Section 2: Hazard(s) Identification

### 2.1 Hazard Classification:

- Corrosive to metals (Category 1), H290
- Acute toxicity, Oral (Category 4), H302
- Skin corrosion (Category 1A), H314
- Skin sensitisation (Category 1), H317
- Acute toxicity, Inhalation (Category 4), H332
- Respiratory sensitisation (Category 1), H334
- Germ cell mutagenicity (Category 2), H341
- Carcinogenicity, Inhalation (Category 1A), H350i
- Reproductive toxicity (Category 1B), H360
- Specific target organ toxicity - repeated exposure (Category 1), H372
- Acute aquatic toxicity (Category 1), H400
- Chronic aquatic toxicity (Category 1), H410

### 2.2 Label elements

**Pictograms:**



**Signal Word(s):** Danger

**Hazard Statements:**

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H332 Harmful if inhaled
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H341 Suspected of causing genetic defects.
- H350i May cause cancer by inhalation.
- H360 May damage fertility or the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements:**

P201 Obtain special instructions before use.  
P261 Avoid breathing dust.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.  
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.  
P501 Dispose of contents/ container to an approved waste disposal plant.

**2.3 Other hazards:** Do not dispose of battery in fire- may explode

**Section 3: Composition/ Information on Ingredients**

**MIXTURE:** This is a manufactured product that does not fall under a chemical designation.

Component	CAS#	Classification	Conc.
Nickel Hydroxide	12054-48-7	Acute Tox. 4; Skin Irrit. 2; Resp. Sens. 1; Skin Sens. 1; Muta. 2; Carc. 1A; Repr. 1B; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H302, H332, H315, H334, H317, H341, H350i, H360, H372, H400, H410 M-Factor - Aquatic Acute: 10	<20%
Potassium Hydroxide	1310-58-3	Met. Corr. 1; Acute Tox. 4; Skin Corr. 1A; H290, H302, H314	<10%
Lithium Hydroxide	1310-66-3	Acute Tox. 4; Skin Corr. 1B; H302, H314	<1%
Zinc Oxide	1314-13-2	Aquatic Acute 1; Aquatic Chronic 1; H400, H410 M-Factor - Aquatic Acute: 1	<19%
Nickel (Powder)	7440-02-0	Carc. 2; Skin Sens. 1; STOT RE 1; Aquatic Chronic 3; H351, H317, H372, H412 M-Factor - Aquatic Acute: 1	<2%
Cobalt	7740-48-4	Resp. Sens. 1; Skin Sens. 1; Aquatic Chronic 4; H334, H317, H413	<1%
Steel	N/A	N/A	<15%

**Section 4: First-Aid Measures**
**4.1 Description of necessary measures**

**If inhalation:** If liquid vapors are inhaled, provide fresh air and seek medical attention if respiratory irritation develops.

**If eye contact:** If liquid comes into contact with eyes, wash with copious amounts of water for 15 minutes, and contact a physician.

**If skin contact:** If liquid leakage occurs and makes contact with skin, flush area with water

immediately.

**If Ingestion:** Never give anything by mouth to an unconscious person. Consult a physician

**4.2 Most important symptoms/effects, acute and delayed.**

See section 2 & section 11

**4.3 Indication of immediate medical attention and special treatment needed**

No data available

**Section 5: Fire-Fighting Measures**

**5.1 Suitable extinguishing media:** Carbon Dioxide, Dry Chemical, or Foam extinguishers

**5.2 Specific hazards arising from the chemical:** Nickel/nickel oxides, Cobalt/cobalt oxides, Zinc/zinc oxides, Lithium oxides, Potassium oxides

**5.3 Special protective equipment and precautions for fire-fighters:** Wear Protective cloths and a positive pressure Self-Contained Breathing Apparatus (SCBA). if necessary.

**Section 6: Accidental Release Measures**

**6.1 Personal precautions, protective equipment, and emergency procedures:** Steps to be taken in case material is released or spilled Batteries that are leaking should be handled with rubber gloves. Avoid Direct contact with liquid. Wear Protective cloths and a positive pressure Self-Contained Breathing Apparatus (SCBA).

**6.2 Methods and materials for containment and cleaning up:** Discharge into the environment must be avoided

**Section 7: Handling and Storage**

**7.1 Precautions for safe handling:** Batteries should be handled and stored carefully to avoid short circuits. NEVER disassemble a battery. Do not breath cell vapors or touch internal material with bare hands.

**7.2 Conditions for safe storage, including any incompatibilities:** The ingredients are contained in a hermetically sealed case, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, hazardous materials are fully contained inside the battery. The battery should not be opened or exposed to heat because exposure to the following ingredients contained within could be harmful under some circumstances. Do not store in disorderly fashion or allow metal objects to be mixed with stored batteries. Keep batteries between -30° and 35°C for prolonged storage.

**Section 8: Exposure Controls/Personal Protection**

**8.1 Control parameters**

Chemical Name	OSHA PEL	OSHA PEL (ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
No data available				

**8.2 Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and after work

**8.3 Individual protection measures:**

**Breathing equipment:** Wear a positive pressure Self-Contained Breathing Apparatus (SCBA).

**Protection of hands/skin:** Handle with gloves, wear protective cloths and use proper glove to avoid skin contact with this product.

**Eye protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards

**Section 9: Physical and Chemical Properties**

**Appearance:** Cylindrical or Prismatic Shape

**Odor:** Odorless

**Odor threshold:** No data available

**pH:** No data available

**Melting point/freezing point:** No data available

**Initial boiling point and boiling range:** No data available

**Flash point:** No data available

**Evaporation rate:** No data available

**Flammability:** No data available

**Upper/lower flammability or explosive limits:** No data available

**Vapor pressure:** No data available

**Vapor density:** No data available

**Relative density:** No data available

**Solubility:** No data available

**Partition coefficient:** No data available

**Auto-ignition temperature:** No data available

**Decomposition temperature:** No data available

**Viscosity:** No data available

#### Section 10: Stability and Reactivity

**10.1 Reactivity:** No data available

**10.2 Chemical stability:** see section 7

**10.3 Possibility of hazardous reactions:** No data available

**10.4 Conditions to avoid:** Do not dispose of battery in fire- may explode

**10.5 Incompatible materials:** No data available

**10.6 Hazardous decomposition products:** No data available

#### Section 11: Toxicological Information

**Acute toxicity:** No data available

**Potential routes of exposure/potential health effects**

**Skin:** In case of liquid leakage, contact with skin can cause severe irritation and chemical burns.

**Eye:** Exposure to the liquid contained inside the battery may result in severe irritation and chemical burns

**Inhalation:** Inhalation of liquid vapors may cause irritation of the upper respiratory tract and lungs.

**Ingestion:** . If the battery case is breached in the digestive tract, the electrolyte may cause localized burns.

**Skin corrosion/irritations:** No data available

**Serious eye damage/eye irritation:** No data available

**Respiratory or skin sensitisation:** No data available

**Germ cell mutagenicity:** No data available



**Carcinogenicity:** Carcinogenicity: Nickel has been identified by the National Toxicology Program (NTP) as reasonably anticipated to be a carcinogen. Cobalt has been identified by IARC as a 2B carcinogen.

**Reproductive toxicity:** No data available

**Specific target organ toxicity - single exposure:** No data available

**Specific target organ toxicity - repeated exposure:** Chronic overexposure to nickel may result in cancer; dermal contact may result in dermatitis in sensitive individuals.

**Aspiration hazard:** No data available

#### Section 12: Ecological Information (non-mandatory)

**12.1 Ecotoxicity:** Under normal use this battery is not hazardous to the ecology. If the battery case is broken, the chemicals inside the battery are harmful to the environment and must be disposed of properly.

**12.2 Persistence and degradability** No data available

**12.3 Bioaccumulative potential:** No data available

**12.4 Mobility in soil:** No data available

**12.5 Other adverse effects (such as hazardous to the ozone layer):** No data available

#### Section 13: Disposal Considerations (non-mandatory)

##### 13.1 Waste treatment methods

ZincFive cares about our environment and has made arrangements for users to easily recycle batteries at end of life. Call ER2, our recycling partner, at 1-844-372-0002 or visit ER2.com to schedule a pick-up and learn more. Nickel-zinc batteries must be handled in accordance with all applicable state and federal laws and regulations.

#### Section 14: Transport Information (non-mandatory)

**14.1 UN number:** No data available

**14.2 UN proper shipping name:** No data available

**14.3 Transport hazard class(es):** No data available

**14.4 Packaging group:** No data available

**14.5 Environmental hazards:** No data available

##### 14.6 Special precautions for user

ZincFive batteries are considered to be "Dry Cell" batteries and are unregulated for the purpose of transportation by the U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAO), International Air Transport Association (IATA), and International Maritime Dangerous Goods Regulations (IMDG). The DOT requirement for shipping Nickel Zinc batteries is Special Provision 130 which states: "Batteries, dry are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat." (For example, by the effective insulation of exposed terminals) Special Provision A123 in the IATA Dangerous Goods Regulations and ICAO Technical Instructions and Special Provision 130 in 49 CFR 172.102 of the U.S. hazardous materials regulations requires batteries being transported by air must be protected from short-circuiting and protected from movement that could lead to short-circuiting in addition, the words "Not Restricted" and "Special Provision A123" are required on the air waybill, when an air waybill is issued.

#### Section 15: Regulatory Information (non-mandatory)

##### US Federal Regulations



SARA Section 355 (extremely hazardous substances): No data available

SARA Section 313 (specific toxic chemical listings): No data available

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs): No data available

TSCA (Toxic Substances Control Act): No data available

**Section 16: Other Information**

The information of SDS is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information of the document is based on the present of our knowledge and is applicable to the product with regard to appropriate safety precautions.

**SDS date of preparation/update: 5/24/2019**