SAFETY DATA SHEET

Issuing Date 26-Apr-2019 **Revision Date** 24-Apr-2019 **Revision Number** 1

NGHS / English

1. IDENTIFICATION

Product identifier

Product Name ONEPWR 4.0Ah Lithium-Ion Battery

Other means of identification

Product Code(s) 1515941

Recommended use of the chemical and restrictions on use

Recommended Use LITHIUM ION BATTERIES

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Identification TTi Floorcare

Address 8501 IBM DR.
Charlotte
NC
28262
US

Telephone Phone:888-321-1134
Fax:440-996-2026

E-mail Valinda.Griggs@ttifloorcare.com

Emergency telephone number

Company Emergency Phone Number 888-321-1134

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4

Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 1

This is a battery. In case of rupture: the above hazards exist.

Appearance Yellow **Physical state** Solid **Odor** Pleasant

GHS Label elements, including precautionary statements

Danger

Hazard statements
Harmful if swallowed
Harmful in contact with skin
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
May cause cancer
May damage fertility or the unborn child
Causes damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Contaminated work clothing must not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
Specific treatment (see supplemental first aid instructions on this label)
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor
Skin
IF ON SKIN: Wash with plenty of water and soap
Call a POISON CENTER or doctor if you feel unwell
Take off contaminated clothing and wash it before reuse
If skin irritation or rash occurs: Get medical advice/attention
Ingestion
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other information
Very toxic to aquatic life with long lasting effects.

Unknown acute toxicity 91 % of the mixture consists of ingredient(s) of unknown toxicity
74 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
88 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Graphite	7782-42-5	20	-	-
Copper	7440-50-8	15	-	-
Iron	7439-89-6	10	-	-
Lithium Cobalt Oxide (CoLiO2)	12190-79-3	5	-	-
Aluminum	7429-90-5	5	-	-
Phosphate(1-), hexafluoro-, lithium	21324-40-3	3	-	-
Nickel	7440-02-0	1	-	-
Methyl propionate	554-12-1	1	-	-
Ethylbenzene	100-41-4	1	-	-
Chromium	7440-47-3	1	-	-
1-Methyl-2-pyrrolidone	872-50-4	1	-	-
Carbon black	1333-86-4	0.1	-	-

4. FIRST AID MEASURES

First aid measures

General advice First aid is upon rupture of sealed battery. Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation. Itching. Rashes. Hives.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical Product is or contains a sensitizer. May cause sensitization by skin contact.

Hazardous Combustion Products Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other Information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling In case of rupture: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. In case of insufficient ventilation, wear suitable respiratory equipment. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits .

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Graphite 7782-42-5	TWA: 2 mg/m^3 respirable particulate matter all forms except graphite fibers	TWA: 15 mg/m^3 total dust synthetic TWA: 5 mg/m^3 respirable fraction synthetic (vacated) TWA: 2.5 mg/m^3 respirable dust natural (vacated) TWA: 10 mg/m^3 total dust synthetic (vacated) TWA: 5 mg/m^3 respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m^3 TWA: 2.5 mg/m^3 respirable dust
Copper 7440-50-8	TWA: 0.2 mg/m^3 fume	TWA: 0.1 mg/m^3 fume TWA: 1 mg/m^3 dust and mist (vacated) TWA: 0.1 mg/m^3 Cu dust, fume, mist	IDLH: 100 mg/m^3 dust, fume and mist TWA: 1 mg/m^3 dust and mist TWA: 0.1 mg/m^3 fume
Lithium Cobalt Oxide (CoLiO2) 12190-79-3	TWA: 0.02 mg/m^3	-	
Aluminum 7429-90-5	TWA: 1 mg/m^3 respirable particulate matter	TWA: 15 mg/m^3 total dust TWA: 5 mg/m^3 respirable fraction (vacated) TWA: 15 mg/m^3 total dust (vacated) TWA: 5 mg/m^3 respirable fraction	TWA: 10 mg/m^3 total dust TWA: 5 mg/m^3 respirable dust
Phosphate(1-), hexafluoro-, lithium	TWA: 2.5 mg/m^3 F	TWA: 2.5 mg/m^3 F (vacated) TWA: 2.5 mg/m^3	IDLH: 250 mg/m^3 F

21324-40-3			
Nickel 7440-02-0	TWA: 1.5 mg/m^3	TWA: 1 mg/m^3 (vacated) TWA: 1 mg/m^3	IDLH: 10 mg/m^3 TWA: 0.015 mg/m^3
Ethylbenzene 100-41-4	STEL = 125 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m^3 (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m^3 (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m^3	IDLH: 800 ppm 10% LEL TWA: 100 ppm TWA: 435 mg/m^3 STEL: 545 mg/m^3 STEL: 125 ppm
Chromium 7440-47-3	TWA: 0.5 mg/m^3 inhalable particulate matter	TWA: 1 mg/m^3 (vacated) TWA: 1 mg/m^3	IDLH: 250 mg/m^3 TWA: 0.5 mg/m^3
Carbon black 1333-86-4	TWA: 3 mg/m^3 inhalable particulate matter	TWA: 3.5 mg/m^3 (vacated) TWA: 3.5 mg/m^3	IDLH: 1750 mg/m^3 TWA: 3.5 mg/m^3 TWA: 0.1 mg/m^3 Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

Chemical name	Alberta	British Columbia	Ontario TWAEV	Quebec
Graphite 7782-42-5	TWA: 2 mg/m^3	TWA: 2 mg/m^3	TWA: 2 mg/m^3	TWA: 2 mg/m^3
Copper 7440-50-8	TWA: 0.2 mg/m^3 TWA: 1 mg/m^3	TWA: 1 mg/m^3 TWA: 0.2 mg/m^3	TWA: 0.2 mg/m^3 TWA: 1 mg/m^3	TWA: 0.2 mg/m^3 TWA: 1 mg/m^3
Lithium Cobalt Oxide (CoLiO2) 12190-79-3	TWA: 0.02 mg/m^3	TWA: 0.02 mg/m^3	TWA: 0.02 mg/m^3	TWA: 0.02 mg/m^3
Aluminum 7429-90-5	TWA: 10 mg/m^3 TWA: 5 mg/m^3	TWA: 1.0 mg/m^3	TWA: 1 mg/m^3	TWA: 10 mg/m^3 TWA: 5 mg/m^3
Phosphate(1-), hexafluoro-, lithium 21324-40-3	TWA: 2.5 mg/m^3	TWA: 2.5 mg/m^3	TWA: 2.5 mg/m^3	TWA: 2.5 mg/m^3
Nickel 7440-02-0	TWA: 1.5 mg/m^3	TWA: 0.05 mg/m^3	TWA: 1 mg/m^3	TWA: 1 mg/m^3
Ethylbenzene 100-41-4	TWA: 100 ppm TWA: 434 mg/m^3 STEL: 125 ppm STEL: 543 mg/m^3	TWA: 20 ppm	TWA: 20 ppm	TWA: 100 ppm TWA: 434 mg/m^3 STEL: 125 ppm STEL: 543 mg/m^3
Chromium 7440-47-3	TWA: 0.5 mg/m^3	TWA: 0.5 mg/m^3	TWA: 0.5 mg/m^3	TWA: 0.5 mg/m^3
1-Methyl-2-pyrrolidone 872-50-4			TWA: 400 mg/m^3	
Carbon black 1333-86-4	TWA: 3.5 mg/m^3	TWA: 3 mg/m^3	TWA: 3 mg/m^3	TWA: 3.5 mg/m^3

Other Exposure Guidelines Hexavalent Chrome may be formed during welding. Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992). See section 15 for national exposure control parameters.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Solid
Appearance	Yellow
Odor	Pleasant
Color	No information available
Odor Threshold	No information available

Property	**Values**	**Remarks Method**
pH	No data available	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water Solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient: n-octanol/water	Not Determined	
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other Information

Explosive properties	No information available
Oxidizing properties	No information available
Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk Density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

10. STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to avoid None known based on information supplied.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous Decomposition Products Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information Product does not present an acute toxicity hazard based on known or supplied information In case of rupture:

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Severely irritating to eyes. May cause burns. May cause irreversible damage to eyes.

Skin contact Specific test data for the substance or mixture is not available. May cause sensitization by skin contact. Causes skin irritation. (based on components). Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).

Information on toxicological effects

Symptoms Redness. Burning. May cause blindness. Itching. Rashes. Hives. May cause redness and tearing of the eyes.

Numerical measures of toxicity

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	901.30 mg/kg
ATEmix (dermal)	1,177.60 mg/kg
ATEmix (inhalation-gas)	20,250.00 mg/L
ATEmix (inhalation-dust/mist)	6.75 mg/L
ATEmix (inhalation-vapor)	49.50 mg/L

Unknown acute toxicity 91 % of the mixture consists of ingredient(s) of unknown toxicity
74 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
88 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
91 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Iron	= 30 g/kg (Rat)	-	-
Nickel	> 9000 mg/kg (Rat)	-	> 10.2 mg/L (Rat) 1 h
Methyl propionate	= 5 g/kg (Rat)	> 5 g/kg (Rabbit)	-
Ethylbenzene	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.4 mg/L (Rat) 4 h
1-Methyl-2-pyrrolidone	= 3914 mg/kg (Rat)	= 8 g/kg (Rabbit)	> 5.1 mg/L (Rat) 4 h
Carbon black	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Respiratory or skin sensitization May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Lithium Cobalt Oxide (CoLiO2) 12190-79-3	A3	Group 2B	Reasonably Anticipated	X
Nickel 7440-02-0	-	Group 2B	Reasonably Anticipated	X
Ethylbenzene 100-41-4	A3	Group 2B	-	X
Chromium 7440-47-3	-	Group 3	-	-
Carbon black 1333-86-4	A3	Group 2B	-	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
Group 3 - Not Classifiable as to Carcinogenicity in Humans
NTP (National Toxicology Program)
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

STOT - single exposure No information available.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Copper	96h EC50: 0.031 - 0.054 mg/L (Pseudokirchneriella subcapitata) 72h EC50: 0.0426 - 0.0535 mg/L (Pseudokirchneriella subcapitata)	96h LC50: 0.0068 - 0.0156 mg/L (Pimephales promelas) 96h LC50: < 0.3 mg/L (Pimephales promelas) 96h LC50: = 0.2 mg/L (Pimephales promelas) 96h LC50: = 0.3 mg/L (Cyprinus carpio) 96h LC50: = 0.052 mg/L (Oncorhynchus mykiss) 96h LC50: = 1.25 mg/L (Lepomis macrochirus) 96h LC50: = 0.112 mg/L (Poecilia reticulata) 96h LC50: = 0.8 mg/L (Cyprinus carpio)	-	48h EC50: = 0.03 mg/L
Iron	-	96h LC50: = 13.6 mg/L (Morone saxatilis)	-	-
Nickel	72h EC50: = 0.18 mg/L (Pseudokirchneriella subcapitata) 96h EC50: 0.174 - 0.311 mg/L (Pseudokirchneriella subcapitata)	96h LC50: = 1.3 mg/L (Cyprinus carpio) 96h LC50: = 10.4 mg/L (Cyprinus carpio) 96h LC50: > 100 mg/L (Brachydanio rerio)	-	48h EC50: > 100 mg/L 48h EC50: = 1 mg/L
Ethylbenzene	72h EC50: = 4.6 mg/L (Pseudokirchneriella subcapitata) 72h EC50: 2.6 - 11.3 mg/L (Pseudokirchneriella subcapitata) 96h EC50: 1.7 - 7.6 mg/L (Pseudokirchneriella subcapitata) 96h EC50: > 438 mg/L (Pseudokirchneriella subcapitata)	96h LC50: = 4.2 mg/L (Oncorhynchus mykiss) 96h LC50: = 9.6 mg/L (Poecilia reticulata) 96h LC50: 7.55 - 11 mg/L (Pimephales promelas) 96h LC50: 9.1 - 15.6 mg/L (Pimephales promelas) 96h LC50: 11.0 - 18.0 mg/L (Oncorhynchus mykiss) 96h LC50: = 32 mg/L (Lepomis macrochirus)	EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	48h EC50: 1.8 - 2.4 mg/L
1-Methyl-2-pyrrolidone	72h EC50: > 500 mg/L (Desmodesmus subspicatus)	96h LC50: = 832 mg/L (Lepomis macrochirus) 96h LC50: = 1072 mg/L (Pimephales promelas) 96h LC50: = 1400 mg/L (Poecilia reticulata) 96h LC50: = 4000 mg/L (Leuciscus idus)	-	48h EC50: = 4897 mg/L
Carbon black	-	-	-	24h EC50: > 5600 mg/L

Persistence and Degradability No information available.

Bioaccumulation

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Component Information

Chemical name	Log Pow
Ethylbenzene	3.2
1-Methyl-2-pyrrolidone	-0.46

Mobility No information available.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

US EPA Waste Number D007

California Waste Codes 141

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste
Copper 7440-50-8	Toxic
Lithium Cobalt Oxide (CoLiO2) 12190-79-3	Toxic
Aluminum 7429-90-5	Ignitable powder
Nickel 7440-02-0	Toxic powder Ignitable powder
Methyl propionate 554-12-1	Ignitable
Ethylbenzene 100-41-4	Toxic Ignitable
Chromium 7440-47-3	Toxic Corrosive Ignitable

14. TRANSPORT INFORMATION

Note: The transportation of primary lithium cells and batteries is regulated by the International Civil Aviation Organization, International Air Transport Association, International Maritime Dangerous Goods Code and the US Department of Transportation. The batteries must meet the following criteria for shipment: 1. Air shipments must meet the requirements listed in Special Provision A45 of the International Air Transport Association Dangerous Goods Regulations. 2. Meet the requirements for the US Department of Transportation listed in 49 CFR 173.185. 3. The transport of primary lithium batteries is prohibited aboard passenger aircraft. Refer to the Federal Register December 15, 2004 (Hazardous Materials; Prohibited on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft; Final Rule)

Lithium batteries shipped as "Lithium batteries", "Lithium batteries packed with equipment", or "Lithium batteries contained in equipment" may not be classified as "Dangerous Goods" when shipped in accordance with "special provision A45 of IATA-DGR" or "special provision 188 of IMO-IMDG Code"

DOT
- **Proper Shipping Name** NON-REGULATED
- **Hazard Class** N/A
- **Emergency Response Guide Number** 147

NOT REGULATED

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA Not regulated
- **Proper Shipping Name** NON REGULATED
- **Hazard Class** N/A

IMDG/IMO Not regulated
- **Hazard Class** N/A
- **EmS-No.** F-A, S-I
- **Marine Pollutant** This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

RID Not regulated

ADR Not regulated
- **Tunnel restriction code** (E)

ADN Not regulated

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Export Notification requirements Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Copper - 7440-50-8	7440-50-8	15	1.0
Lithium Cobalt Oxide (CoLiO2) - 12190-79-3	12190-79-3	5	0.1
Aluminum - 7429-90-5	7429-90-5	5	1.0
Nickel - 7440-02-0	7440-02-0	1	0.1
Ethylbenzene - 100-41-4	100-41-4	1	0.1
Chromium - 7440-47-3	7440-47-3	1	1.0
1-Methyl-2-pyrrolidone - 872-50-4	872-50-4	1	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper 7440-50-8		X	X	
Nickel 7440-02-0		X	X	
Ethylbenzene 100-41-4	1000 lb	X	X	X
Chromium 7440-47-3		X	X	

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Copper 7440-50-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Nickel 7440-02-0	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Ethylbenzene 100-41-4	1000 lb		RQ= 1000 lb final RQ RQ= 454 kg final RQ
Chromium 7440-47-3	5000 lb 10 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ RQ 10 lb final RQ

			RQ 4.54 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Ethylbenzene - 100-41-4	Carcinogen
Lithium carbonate - 554-13-2	Developmental
Nickel - 7440-02-0	carcinogen, 10/1/1989 (metallic)
1-Methyl-2-pyrrolidone - 872-50-4	Developmental
Carbon black - 1333-86-4	Carcinogen

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Graphite 7782-42-5	X	X	X		
Copper 7440-50-8	X	X	X	X	X
Lithium Cobalt Oxide (CoLiO2) 12190-79-3	X		X	X	X
Aluminum 7429-90-5	X	X	X	X	
Phosphate(1-), hexafluoro-, lithium 21324-40-3	X				
Nickel 7440-02-0	X	X	X	X	X
Methyl propionate 554-12-1	X	X	X		
Ethylbenzene 100-41-4	X	X	X	X	X
Chromium 7440-47-3	X	X	X	X	X
1-Methyl-2-pyrrolidone 872-50-4	X	X	X	X	
Carbon black 1333-86-4	X	X	X		X

16. OTHER INFORMATION

NFPA	**Health hazards** 1	**Flammability** 0	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 0	**Flammability** 0	**Physical hazards** 0	**Personal Protection** X

Prepared By

Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 26-Apr-2019

Revision Date 24-Apr-2019

Revision Note No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet

31713 94500000 4400163

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Carpet cleaner

Restrictions on use Uses other than those identified are not recommended

Details of

Supplier Address
Royal Appliance Mfg. Co. d/b/a TTI Floor Care North America
8405 IBM Drive
Charlotte, NC 2

Serious eye damage

Hazards not otherw
Not applicable

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/eye protection/face protection

Flash point	> 93.3 °C / 200 °F
Evaporation rate	No data available
Flamm	

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider Avoid contact with skin

f any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to lo

Specific hazards arising from the chemical No information available.

not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Explosion data

Sensitivity to mechanical impact None.

Appropriate engineering controls

Sensitivity to static discharge None.

Engineering controls Showers
Eyewash stations
Firefi
Ventilation systems

Special protective equipment and precautions for fire-fighters

sibility of hazardous reactions None under normal processing.

Conditions to avoid None known based on information supplied.

y procedures

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

Hazardous deco

Other information Refer to protective measures listed in Sections 7 a

hemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear to hazy
Color	colorless
Odor	fresh air
Odor threshold	No information available

nd storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this prod y cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Property	**Values**	**Remarks • Method**
p		

Symptoms related to the physical, chemical and toxicological characteristics

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Exposure Limits T

kin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ve

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No info

Symptoms Redness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity
No information available

The following values are calcula

f any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

tion toxicity (gas)

1.45247 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

5. Fire-fighting measures

Component information

31713-94500000-440016396

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrogen peroxide 7722-84-1	=1518 mg/kg (R None		

Suitable Extinguishing Media Use extinguishing measures that are appropriate to lo

Synonyms

Recommended use of the chemical and restrictions on use

Recommended use	Carpet cleaner		
Restrictions on use	Uses other than those identified are not recommended		
Details o	25 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Irritatin

rmation available.

Carcinogenicity No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Hydrogen peroxide 7722-84-1	A3	Group		

information available.

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STOT - single exposure No information available.

STOT - repeated exposure No information available.

Flash point	> 93.3 °C / 200 °F
Target organ effects	No data available.
Flammability	No information available.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	

			-	EC50: 18 - 32mg/L (48h, Daphnia magna)
Phosphonic acid, (1-hydroxyethylidene)bis- 2809-21-4	-	25 mg/kg (Rat)	- 56mg/L (96h, Lepomis macrochirus) LC50: 10.0 - 32.0mg/L (96h, Oncorhynchus mykiss) LC50: =868mg/L (96h, Lepomis macrochirus) LC50	= 1350 mg/kg (Rabbit) -

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Irritating

re is no data for this product.

Component Information

Chemical name	Partition coefficient
Phosphonic acid, (1-hydroxyethylidene)bis- 2809-21-4	-3.5

Other adverse effects No information available.

13. Disposal considerations

DOT Not regulated

14. Transport information

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

cause

IMDG Not regulated

15. Regulatory information

IMDG Not regulated

15. Regulatory information

International Inventories

TSCA	Listed.
DSL/NDSL	Listed on DSL.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	

ntact supplier for inventory compliance status.

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS

ting and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals

US Federal Regulations

SARA 313
Section 313 of Title III of the

A 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)
This product contains the following su

odium hydroxide 1310-73-2	1000 lb	-	-	X

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Li

			inal RQ RQ 454 kg final RQ

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US State Regulations

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Hydrogen peroxide 7722-84-1	X	X	X
Sodium hydroxide 1310-73-2	X	X	X

U.S. EPA Label Information

EPA Pesti

ge) STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value * Skin designation

rces for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection A

rdous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIO

ssification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Producti

available.

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