# **SAFETY DATA SHEET**

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: MULTI-SURFACE Product Code: AH30427

Company Name: Techtronic Floor Care Technology Limited

Distibuted by Hoover, Inc.

Address : 8405 IBM Drive

Charlotte, NC 28262

EMERGENCY PHONE : 513-636-5114 (Poison Control Centre)

INFORMATION PHONE: 1-800-944-9200

Product Use: Floor cleaner

#### 2. HAZARDS IDENTIFICATION

# **CLASSIFICATION**

Eye Damage/Irritation 2B

SIGNAL WORD: Warning

#### **Hazard Statements**

Causes eye irritation

## **Precautionary Statements**

Wash hands thoroughly after handling

IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

If eye irritation persists: Get medical advice/attention

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Percent
ALCOHOLS, C9-11, ETHOXYLATED	68439-46-3	1.10

#### 4. FIRST AID MEASURES

**INHALATION:** Remove to fresh air. Administer oxygen if needed. Apply artificial respiration if breating has stopped. Get medical attention.

EYE CONTACT: Wash immediately with large volumes of fresh water for at least 15 minutes. Get medical attention.

SKIN CONTACT: Wipe off with a towel. Wash with soap and water. Get medical attention if irritation persists.

**INGESTION:** If swallowed, do not induce vomiting. Get immediate medical attention.

Most important symptoms/effects, acute and delayed: Repeated exposure may cause skin dryness or cracking.

Indication of immediate medical attention and special treatment needed: None known.

#### 5. FIRE FIGHTING MEASURES

Suitable and unsuitable extinguising media: None required.

SDS for: AH30427 Page 1 of 3

Printed: 3/29/2019

**Specific hazards arising from the chemical:** Closed containers may burst from internal pressure build-up when exposed to extreme heat and discharge contents. Liquid content of container will not support combustion. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent. Obtain medical attention. Hazardous decomposition products include carbon dioxide, carbon monoxide, and other toxic fumes.

**Special equipment and precautions for fire-fighters:** Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat. Wear goggles and use self-contained breathing apparatus. If water is used, fog nozzles are preferred.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Avoid breathing vapors. Ventilate area. Remove all sources of ignition.

Methods and materials for containment and cleaning up: Clean up with absorbent material and place in closed containers for disposal.

#### 7. HANDLING AND STORAGE

**Precautions for safe handling:** Keep closure tight and container upright to prevent leakage. Follow usage directions. Do not get in eyes. Avoid skin contact and contact with clothing. Do not take internally.

**Conditions for safe storage, including any incompatibilities:** Store and use in cool, dry, well-ventilated areas. Keep containers closed when not in use. Keep away from excessive heat.

#### 8. EXPOSURE CONTROL/PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
ALCOHOLS, C9-11,	Not established	Not established	
ETHOXYLATED			
68439-46-3			

Appropriate engineering controls: Ventilation should be sufficient to prevent inhalation of any vapors.

#### Individual protection measures:

**Respiratory protection:** None under normal use. Avoid breathing vapors. In restricted areas, use approved chemical/mechanical filters designed to remove a combination or particles and vapor. In confined areas, use an approved air line respirator or hood. Self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Protective gloves: None under normal use. Use solvent-resistant for prolonged or repeated contact.

**Eye protection:** None under normal use. However, use of safety glasses with splash guards or full face shield should be used if indicated.

**Other protective clothing or equipment:** None under normal use. However, use of solvent-resistant aprons or other clothing is recommended. Eye washes and safety showers in the workplace are recommended.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Thin liquid	Color	Water-white to Lt. straw
Odor:	Pleasant	Odor threshold:	Not determined
Density:	1.002 +/- 0.005	pH:	8.0-9.0
Melting point:	Not determined	Freezing point:	Not determined

SDS for: AH30427 Page 2 of 3

Solubility: Readily soluble

in water

Flash point: Not determined

Flammability: Will not burn

Autoignition temperature: Not determined

Viscosity: 5 - 15 cps

Vapor Density: Heavier than air

**Boiling point:** Not determined

**Evaporation rate:** Slower than ether

Explosive Limits: Not applicable

Decomposition temperature: Not determined

Vapor Pressure: Not determined

Partition coefficient (n- Not determined

octanol/water):

#### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical stability: Stable under normal storage and handling conditions.

Possibility of hazardous reactions: None known.

**Incompatible materials:** Strong oxidizing agents. **Hazardous decomposition products:** None known.

#### 11. TOXICOLOGICAL INFORMATION

Long-term toxicological studies have not been conducted for this product.

# 12. ECOLOGICAL INFORMATION

Long-term ecological studies have not been conducted for this product.

#### 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations. Before attempting clean up, refer to other sections of this document for hazard cautionary information.

# 14. TRANSPORT INFORMATION

By land: Not regulated.

By water: Not regulated.

By air: Not regulated.

# 15. REGULATORY INFORMATION

All ingredients are either listed on the TSCA inventory or are exempt.

This product can expose you to chemicals including those listed below, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www. P65Warnings.ca.gov.

None

#### 16. OTHER INFORMATION

Date revised: 2019-03-29 Revision 0

Date Printed: 2019-03-29

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SDS for: AH30427 Page 3 of 3

Printed: 3/29/2019

# **SAFETY DATA SHEET**

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

NGHS / English



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# 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 eve 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

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



Page 2 / 15

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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.



Page 3 / 15

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

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



21324-40-3							
Nickel		TWA: 1.5 m	ıg/m³	TW	TWA: 1 mg/m <sup>3</sup>		IDLH: 10 mg/m <sup>3</sup>
7440-02-0				(vacated)	) TWA: 1 mg/m <sup>3</sup>		TWA: 0.015 mg/m <sup>3</sup>
Ethylbenzene		STEL = 125			A: 100 ppm	IDI	LH: 800 ppm 10% LEL
100-41-4		TWA: 100	ppm		: 435 mg/m <sup>3</sup>		TWA: 100 ppm
					TWA: 100 ppm		TWA: 435 mg/m <sup>3</sup>
					TWA: 435 mg/m <sup>3</sup>		STEL: 545 mg/m <sup>3</sup>
					STEL: 125 ppm		STEL: 125 ppm
					STEL: 545 mg/m <sup>3</sup>		
Chromium		TWA: 0.5 mg/m <sup>3</sup>			A: 1 mg/m <sup>3</sup>		IDLH: 250 mg/m <sup>3</sup>
7440-47-3		particulate n			) TWA: 1 mg/m <sup>3</sup>		TWA: 0.5 mg/m <sup>3</sup>
Carbon black		TWA: 3 mg/m <sup>3</sup>	inhalable		: 3.5 mg/m <sup>3</sup>		IDLH: 1750 mg/m <sup>3</sup>
1333-86-4		particulate n	natter	(vacated)	TWA: 3.5 mg/m <sup>3</sup>		TWA: 3.5 mg/m <sup>3</sup>
							: 0.1 mg/m³ Carbon black
							presence of Polycyclic
							natic hydrocarbons PAH
Chemical name		Alberta	British C		Ontario TWAE		Quebec
Graphite		ΓWA: 2 mg/m³	TWA: 2	2 mg/m³	TWA: 2 mg/m	3	TWA: 2 mg/m <sup>3</sup>
7782-42-5							
Copper		WA: 0.2 mg/m <sup>3</sup>		mg/m³	TWA: 0.2 mg/n		TWA: 0.2 mg/m <sup>3</sup>
7440-50-8		ΓWA: 1 mg/m <sup>3</sup>		2 mg/m <sup>3</sup>	TWA: 1 mg/m		TWA: 1 mg/m <sup>3</sup>
Lithium Cobalt Oxide	T۷	VA: 0.02 mg/m <sup>3</sup>	TWA: 0.0	)2 mg/m <sup>3</sup>	TWA: 0.02 mg/	m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup>
(CoLiO2)							
12190-79-3		_					
Aluminum	TWA	: 10 mg/m <sup>3</sup> TWA: 5	TWA: 1.	0 mg/m³	TWA: 1 mg/m	3	TWA: 10 mg/m <sup>3</sup> TWA: 5
7429-90-5		mg/m <sup>3</sup>					mg/m <sup>3</sup>
Phosphate(1-),	T	WA: 2.5 mg/m <sup>3</sup>	TWA: 2.	5 mg/m³	TWA: 2.5 mg/n	n <sup>3</sup>	TWA: 2.5 mg/m <sup>3</sup>
hexafluoro-, lithium							
21324-40-3						_	
Nickel	T	WA: 1.5 mg/m <sup>3</sup>	TWA: 0.0	)5 mg/m <sup>3</sup>	TWA: 1 mg/m	3	TWA: 1 mg/m <sup>3</sup>
7440-02-0							
Ethylbenzene		WA: 100 ppm	TWA: 2	20 ppm	TWA: 20 ppm	1	TWA: 100 ppm
100-41-4		NA: 434 mg/m <sup>3</sup>					TWA: 434 mg/m <sup>3</sup>
		STEL: 125 ppm					STEL: 125 ppm
		ΓΕL: 543 mg/m <sup>3</sup>		- / 2	T1444 2 = -	2	STEL: 543 mg/m <sup>3</sup>
Chromium	T	WA: 0.5 mg/m <sup>3</sup>	IWA: 0.	5 mg/m <sup>3</sup>	TWA: 0.5 mg/n	ทง	TWA: 0.5 mg/m <sup>3</sup>
7440-47-3					T14/4 400 /	2	
1-Methyl-2-pyrrolidone 872-50-4					TWA: 400 mg/r	n³	
Carbon black	Т	WA: 3.5 mg/m <sup>3</sup>	TWA: 3	3 mg/m <sup>3</sup>	TWA: 3 mg/m	3	TWA: 3.5 mg/m <sup>3</sup>
1333-86-4					_		

**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

> > None known

the product.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical and Chemical Properties** 

Solid **Physical state Appearance** Yellow Odor Pleasant

Color No information available **Odor Threshold** No information available

**Property** Values Remarks Method

No data available None known Hq 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 None known

Flammability Limit in Air

**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

Partition coefficient: n-octanol/waterNot Determined

**Autoignition temperature** No data available None known None known **Decomposition temperature** No data available 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)



Page 8 / 15

.0Ah Lithium-Ion Battery Revision Date 24-Apr-2019

**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	A3	Group 2B	Reasonably Anticipated	X
(CoLiO2)				
12190-79-3				
Nickel	-	Group 2B	Reasonably Anticipated	X
7440-02-0				
Ethylbenzene	A3	Group 2B	-	X
100-41-4				
Chromium	-	Group 3	-	-
7440-47-3				
Carbon black	A3	Group 2B	-	X
1333-86-4				

#### 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.



Page 9 / 15

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# 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  Ethylbenzene	72h EC50: = 0.18 mg/L (Pseudokirchneriella subcapitata) 96h EC50: 0.174 - 0.311 mg/L (Pseudokirchneriella subcapitata)  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: >	(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:	- EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	48h EC50: > 100 mg/L 48h EC50: = 1 mg/L 48h EC50: 1.8 - 2.4 mg/L
	438 mg/L (Pseudokirchneriella subcapitata)	11.0 - 18.0 mg/L (Oncorhynchus mykiss) 96h LC50: = 32 mg/L (Lepomis macrochirus)		
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** 



**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	Toxic
7440-50-8	
Lithium Cobalt Oxide (CoLiO2)	Toxic
12190-79-3	
Aluminum	Ignitable powder
7429-90-5	
Nickel	Toxic powder
7440-02-0	Ignitable powder
Methyl propionate	Ignitable
554-12-1	
Ethylbenzene	Toxic
100-41-4	Ignitable
Chromium	Toxic
7440-47-3	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"

DOTNOT REGULATEDProper Shipping NameNON-REGULATED

Hazard Class N/A Emergency Response Guide 147

Number

177

TDG Not regulated

MEX Not regulated

ICAO Not regulated

<u>IATA</u> 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.

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		Х	Х	
Ethylbenzene 100-41-4	1000 lb	X	Х	X
Chromium 7440-47-3		Х	Х	

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

# **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

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#### **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** 



Page 15 / 15