SAFETY DATA SHEET

Issuing Date 28-Oct-2022

Revision Date 27-Oct-2022

Revision Number 1

NGHS / English



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1. IDENTIFICATION

Product identifier

Product Name Rechargeable Li-ion Battery L22M3PG0- by Simplo

Other means of identification

Product Code(s) 1721387

Recommended use of the chemical and restrictions on use

Recommended Use Lithium Ion Battery

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Identification Lenovo LNB laptops

Address Songtao Road 696

shanghai shanghai 201203 CN

Telephone Phone:18116118603

E-mail yuanbb1@lenovo.com

Emergency telephone number

Company Emergency Phone

Number

18116118603

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2



Specific target organ toxicity (repeated exposure)

Category 1

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

Appearance Black Physical state Solid Odor Odorless

GHS Label elements, including precautionary statements

Danger

Hazard statements

Harmful in contact with skin Causes severe skin burns and eye damage Suspected of causing cancer 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 breathe dust/fume/gas/mist/vapors/spray

Do not eat, drink or smoke when using this product

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)

Immediately call a POISON CENTER or doctor

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

Call a POISON CENTER or doctor if you feel unwell

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

Wash contaminated clothing before reuse

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Immediately call a POISON CENTER or doctor

Ingestion

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

May be harmful if swallowed. Harmful to aquatic life with long lasting effects.



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Unknown acute toxicity

72 % of the mixture consists of ingredient(s) of unknown toxicity

70 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

72 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

72 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

72 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

72 % 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)
Lithium Cobalt Oxide (CoLiO2)	12190-79-3	40	-	-
Graphite	7782-42-5	25	-	-
Propylene carbonate	108-32-7	15	-	-
Ethylene carbonate	96-49-1	15	-	-
1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1-difluoroethene	9011-17-0	15	-	-
Phosphate(1-), hexafluoro-, lithium	21324-40-3	5	-	-
Carbon black	1333-86-4	2	-	-

4. FIRST AID MEASURES

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required. IF exposed or concerned: Get medical advice/attention. First aid is upon rupture of

sealed battery. In case of rupture:

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical

attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical

advice/attention.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present

and easy to do. Continue rinsing. Get immediate medical advice/attention.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Get immediate medical advice/attention.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water.



Never give anything by mouth to an unconscious person. Get immediate medical

advice/attention.

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. Avoid direct contact with skin. Use

barrier to give mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.

Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood

pressure may occur with moist rales, frothy sputum, and high pulse pressure.

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 mediaDo not scatter spilled material with high pressure water streams.

Specific hazards arising from the

chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition

can lead to release of irritating gases and vapors.

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. Attention! Corrosive material. 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. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Protect from moisture. Keep out of the reach of children. Store away from other materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

Chemical name		ACGIH T	LV	03	SHA PEL		NIOSH IDLH	
Lithium Cobalt Oxide (Co	LiO2)	TWA: 0.02 r	2 mg/m ³ -					
12190-79-3								
Graphite		TWA: 2 mg/m³ r		TWA: 15 r	ng/m³ total dust		IDLH: 1250 mg/m ³	
7782-42-5		particulate matte	r all forms		ynthetic	TWA	.: 2.5 mg/m³ respirable	﴿
		except graphit	e fibers	TWA: 5 m	g/m³ respirable		dust	
					on synthetic			
					TWA: 2.5 mg/m ³			
					e dust natural			
					VA: 10 mg/m³ total			
					synthetic			
					TWA: 5 mg/m ³			
					raction synthetic			
					mppcf natural			_
Phosphate(1-), hexafluc	oro-,	TWA: 2.5 mg	g/m³ F		2.5 mg/m ³ F		IDLH: 250 mg/m ³ F	
lithium				(vacated)	TWA: 2.5 mg/m ³			
21324-40-3								_
Carbon black		TWA: 3 mg/m ³			: 3.5 mg/m³		IDLH: 1750 mg/m ³	
1333-86-4		particulate n	natter	(vacated)	TWA: 3.5 mg/m ³	T 14/4	TWA: 3.5 mg/m ³	.
							0.1 mg/m³ Carbon blad	ck
							presence of Polycyclic	.
		A.II	5 1		0 / 1 714/45		natic hydrocarbons PAF	1
Chemical name		Alberta		Columbia	Ontario TWAE	-	Quebec	
Lithium Cobalt Oxide	TV	VA: 0.02 mg/m ³	TWA: 0.0	02 mg/m ³	TWA: 0.02 mg/r	m³	TWA: 0.02 mg/m ³	
(CoLiO2)								
12190-79-3		F1444 0 / 0	T14/4 G		T) 1/1 0 / /	2	T14/4 0 / 0	_
Graphite		ΓWA: 2 mg/m³	1WA: 2	2 mg/m³	TWA: 2 mg/m ³	3	TWA: 2 mg/m ³	
7782-42-5								_
Phosphate(1-),	T	WA: 2.5 mg/m ³	TWA: 2.	5 mg/m³	TWA: 2.5 mg/n	ո ³	TWA: 2.5 mg/m ³	
hexafluoro-, lithium								
21324-40-3								



Carbon black	TWA: 3.5 mg/m ³	TWA: 3 mg/m ³	TWA: 3 mg/m ³	TWA: 3 mg/m ³
1333-86-4	_	-	-	_

Other Exposure Guidelines

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 Face protection shield.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

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. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended.

Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid
Appearance Black
Odor Odorless

ColorNo information availableOdor ThresholdNo information available

PropertyValuesRemarksMethodpHNo data availableNone known

Melting / freezing point No data available None known Boiling point / boiling range No data available None known No data available Flash Point 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

Lower flammability limit

No data available

No data available

Vapor pressureNo data availableNone knownVapor densityNo data availableNone knownRelative densityNo data availableNone known

Water Solubility Insoluble in water Solubility(ias)

Solubility(ies) No data available None known

Partition coefficient: n-octanol/water1

Autoignition temperatureNo data availableNone knownDecomposition temperatureNo data availableNone known



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Kinematic viscosityNo data availableNone knownDynamic viscosityNo data availableNone 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 Exposure to air or moisture over prolonged periods.

Incompatible materials Acids. Bases. Oxidizing agent.

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. Corrosive by inhalation.

(based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs.

Pulmonary edema can be fatal.

Eye contact Specific test data for the substance or mixture is not available. Causes burns. (based on

components). Corrosive to the eyes and may cause severe damage including blindness.

Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact Specific test data for the substance or mixture is not available. Corrosive. (based on

components). Causes burns. May be absorbed through the skin in harmful amounts.

Harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available. Causes burns. (based on

components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the



mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Coughing and/ or wheezing.

Numerical measures of toxicity

Acute toxicity

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

ATEmix (oral) 2,277.70 mg/kg **ATEmix (dermal)** 1,680.00 mg/kg

Unknown acute toxicity 72 % of the mixture consists of ingredient(s) of unknown toxicity

70 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 72 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

72 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 72 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor) 72 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Product Information

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Lithium Cobalt Oxide (CoLiO2)	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5.05 mg/L (Rat) 4 h
Graphite	-	-	> 2000 mg/m³ (Rat) 4 h
Propylene carbonate	= 29000 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
Ethylene carbonate	= 10 g/kg (Rat)	> 26420 mg/kg (Rabbit)	> 730 mg/m³ (Rat) 8 h
Carbon black	> 15400 mg/kg (Rat)	-	> 4.6 mg/m³ (Rat) 4 h

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. Causes burns.

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

Causes burns.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for

ingredients. Suspected of causing 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				
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

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 No information available.

STOT - single exposure No information available.

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

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
Graphite	No data available	96h LC50: > 100 mg/L	No data available	No data available
		(Danio rerio)		
Propylene carbonate	72h EC50: > 500 mg/L	96h LC50: > 1000 mg/L	EC50 > 10000 mg/L 17 h	48h EC50: > 500 mg/L
	(Desmodesmus	(Cyprinus carpio)		(Daphnia magna)
	subspicatus)			
Ethylene carbonate	No data available	96h LC50: > 100 mg/L	No data available	No data available
		(Oncorhynchus mykiss)		

Persistence and Degradability

No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Propylene carbonate	0.48
Ethylene carbonate	0.11

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.

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
Lithium Cobalt Oxide (CoLiO2) 12190-79-3	Toxic

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"

Proper Shipping Name

NON-REGULATED

NON-REGULATED

Proper Shipping Name

NON-REGULATED

Hazard Class N/A Emergency Response Guide 147

Number

<u>TDG</u>

MEX Not applicable

ICAO Not applicable

IATA

UN-No. UN3480

Proper Shipping Name LITHIUM ION BATTERIES

Hazard Class 9 ERG Code 12FZ

Description UN3480, LITHIUM ION BATTERIES, 9

IMDG/IMO Not applicable

Proper Shipping Name NON-REGULATED PER SP 188

Hazard Class N/A EmS-No. F-A, S-I

RIDNot applicableADRNot applicableADNNot applicable

15. REGULATORY INFORMATION

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

International Regulations



The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA

DSL/NDSL

EINECS/ELINCS

ENCS

KECL

PICCS

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 %
Lithium Cobalt Oxide (CoLiO2) - 12190-79-3	12190-79-3	40	0.1

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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65





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
Lithium Cobalt Oxide	X		X	X	X
(CoLiO2) 12190-79-3					
Graphite 7782-42-5	Х	Х	Х		
Ethylene carbonate 96-49-1		X	Х		
Phosphate(1-), hexafluoro-, lithium 21324-40-3	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 28-Oct-2022

Revision Date 27-Oct-2022

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

