

Safety DATA SHEET

FICHE DE DONNÉES SUR LA SÉCURITÉ

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1. IDENTIFICATION DE LA SUBSTANCE/PRÉPARATION ET DE LA ENTREPRISE/ENTREPRISE

Product identifier

Identificateur de produit

Product Name

Nom du produit

751836

Details of the supplier of the Safety data sheet

Détails du fournisseur de la fiche de données de sécurité

Supplier Name

Nom du fournisseur

Dongguan Sunly Battery Technology Co., Ltd.

Supplier Address

Adresse du fournisseur

Building 30th, Xin Tai Yang Industrial City, No.8 Xinyang Road, Lin Cun Community, Tangxia Town, Dongguan City, Guangdong Province, China

Supplier Phone Number

Numéro de téléphone du fournisseur

Phone: +86-769-87285025

Téléphone : +86-769-87285025

Supplier Email

Courriel du fournisseur

RD-qinguofu@sunlybattery.com

2. HAZARDS IDENTIFICATION

2. HAZARDS IDENTIFICATION

Classification

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) This product is an article which is a sealed battery and as such does not require an MSDS per the OSHA hazard communication standard unless ruptured. The hazards indicated are for a ruptured battery.

Ce produit chimique n'est pas considéré comme dangereux par la norme de communication des dangers de l'OSHA 2012 (29 CFR 1910.1200) Ce produit est un article qui est une batterie scellée et qui, à ce titre, ne nécessite pas de SMDPar selon la norme de communication sur les risques de l'OSHA, à moins d'être rompu. Les dangers indiqués sont pour une batterie rompue.

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1
Acute Toxicity-Oral	Category 4
Specific target organ toxicity(Repeated Exposure)	Category 1

GHS Label elements, including precautionary statements

Éléments de l'étiquette GHS, y compris les déclarations de précaution

Emergency Overview

Vue d'ensemble d'urgence

Signal word Mot de signal	Danger Danger
Hazard Statements Déclarations de dangers Harmful if swallowed Nocif s'il est avalé Cause skin irritation Causer une irritation de la peau Causes serious eye damage Cause de graves lésions oculaires May cause cancer Peut causer le cancer Causes damage to organs Cause des dommages aux organes	
	
This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold. Intended use of the product should not result in exposure to the chemical substance. This is a battery. In case of rupture: the above hazards exist. Ce produit est un article qui contient une substance chimique. Des informations sur la sécurité sont données pour l'exposition à l'article tel qu'il a été vendu. L'utilisation prévue du produit ne devrait pas entraîner l'exposition à la substance chimique. C'est une batterie. En cas de rupture : les dangers ci-dessus existent.	
Appearance Apparence	Silvery Argenté
Physical State État physique	Solid Liquide solide contenant
Odor Odeur	Odorless Inodore

Precautionary Statements – Prevention

Déclarations de précaution - Prévention

Wash face, hands and any exposed skin thoroughly after handling

Lavez le visage, les mains et toute peau exposée à fond après la manipulation

Wear protective gloves/protective clothing/eye protection/face protection

Portez des gants de protection/vêtements de protection/protection oculaire/protection du visage

Wear eye/face protection

Portez une protection pour les yeux et le visage

Precautionary Statements – Response

Déclarations de précaution - Réponse

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

Traitement spécifique (voir instructions de premiers soins supplémentaires sur cette étiquette)

Eyes

Yeux

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

SI EN YEUX: Rincer prudemment avec de l'eau pendant plusieurs minutes. Enlever les lentilles cornéennes, si elles sont présentes et faciles à faire. Continuer le rinçage

If eye irritation persists: Get medical advice/attention

Si l'irritation oculaire persiste : Obtenez des conseils médicaux/attention

Skin

Peau

IF ON SKIN: Wash with plenty of soap and water

SI SUR SKIN: Laver avec beaucoup de savon et d'eau

Take off contaminated clothing and wash before reuse

Enlever les vêtements contaminés et les laver avant de les réutiliser

If skin irritation or rash occurs: Get medical advice/attention

En cas d'irritation ou d'éruption cutanée : Obtenez des conseils médicaux/attention

Precautionary Statements – Storage

Déclarations de précaution - Stockage

Store locked up
Magasin verrouillé

Precautionary Statements – Disposal

Déclarations de précaution - Disposition

Dispose of contents/container to an approved waste disposal plant

Disposer du contenu/conteneur dans une usine d'élimination des déchets approuvée

Hazards not otherwise classified (HNOC)

Risques non classés autrement

Not applicable

Non applicable

Other information

Autres informations

Interactions with Other Chemicals

Interactions avec d'autres produits chimiques

No information available

Aucune information disponible

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.COMPOSITION/INFORMATION SUR INGREDIENTS

Common Chemical Name	Chemical Formula	Concentration (%)	CAS Number
Lithium Cobalt Oxide	LiCoO ₂	40.5	12190-79-3
Polyvinylidene Fluoride (PVDF)	(C ₂ H ₂ F ₂) _n	0.8	24937-79-9
Aluminium	Al	5.8	7429-90-5
Graphite	C ₂₄ X ₁₂	19.0	7782-42-5
Styrene-Butadiene Rubber (SBR)	(C ₈ H ₈ .C ₄ H ₆) _x	1.2	61789-96-6
Carboxymethylcellulose	C ₆ H ₁₂ O ₆	0.3	9000-11-7
Copper	Cu	10.6	7440-50-8
Nickel	Ni	0.4	7440-02-0
Lithium Hexafluorophosphate	LiPF ₆	21.4	21324-40-3

4. FIRST AID MEASURES

4.MESURES DE PREMIERS SOINS

First aid measures

Mesures de premiers secours

General Advice

Conseils généraux

First aid is upon rupture of sealed battery. Show this Safety data sheet to the doctor in attendance

Les premiers soins sont sur la rupture de la batterie scellée. Montrez cette fiche de données sécurité au médecin présent

Eye Contact

Contact visuel

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

Rincer immédiatement avec beaucoup d'eau, également sous les paupières, pendant au moins 15 minutes. Gardez les yeux grands ouverts tout en rinçant. Retirez les lentilles cornéennes, si elles sont présentes et faciles à faire. Continuer le rinçant. Obtenir des soins médicaux si l'irritation se développe et persiste. Ne frottez pas la zone touchée

Skin Contact

Contact peau

Wash off immediately with soap and plenty of water for at least 15 minutes. In the case of skin irritation or allergic reactions see a physician. May cause an allergic skin reaction.

Laver immédiatement avec du savon et beaucoup d'eau pendant au moins 15 minutes. Dans le cas d'une irritation de la peau ou des réactions allergiques voir un médecin. Peut provoquer une réaction cutanée allergique.

Inhalation

Inhalation

Remove to fresh air. If symptoms persist, call a physician. Get medical attention immediately if symptoms occur.

Retirer à l'air frais. Si les symptômes persistent, appelez un médecin. Obtenez immédiatement des soins médicaux en cas de symptômes.

Ingestion

Ingestion

Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Ne pas induire des vomissements. Rincer la bouche immédiatement et boire beaucoup d'eau. Ne donnez jamais rien par la bouche à une personne inconsciente. Appelez un médecin.

Self-protection of the first aider

Autoprotection du secouriste

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8) Évitez tout contact avec la peau, les yeux ou les vêtements. Utilisez de l'équipement de protection individuelle au besoin. Porter des vêtements de protection individuelle (voir la section 8)

Most important symptoms and effects, both acute and delayed

Les symptômes et effets les plus importants, aigus et retardés

Most Important Symptoms and Effects

Symptômes et effets les plus importants

Coughing and/ or wheezing. Itching. Toux et/ou respiration sifflante. Démangeaisons.

Indication of any immediate medical attention and special treatment needed

Indication de toute attention médicale immédiate et traitement spécial nécessaire

Notes to Physician

Notes au médecin

Treat symptomatically Traiter symptomatiquement

5. FIRE-FIGHTING MEASURES

5.MESURES DE LUTTE CONTRE L'INCENDIE

Suitable Extinguishing Media

Médias d'extinction appropriés

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

Utiliser des mesures d'extinction adaptées aux circonstances locales et aux Environnement.

Unsuitable Extinguishing Media

Médias d'extinction inappropriés

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

CAUTION: L'utilisation de pulvérisation d'eau lors de la lutte contre l'incendie peut être inefficace

Specific Hazards Arising from the Chemical

Risques spécifiques découlant de la

No information available.

Aucune information disponible.

Hazardous Combustion Products

Produits de combustion dangereux

Carbon Oxides

Oxydes de carbone

Protective equipment and precautions for firefighters

Équipement de protection et précautions pour les pompiers

As in any fire, wear self-contained breathing apparatus pressure-demand,MSHA/NIOSH (approved or equivalent) and full protective gear.

Comme dans tout incendie, porter un appareil respiratoire autonome à la demande de pression,MSHA/NIOSH (approuvé ou équivalent) et un équipement de protection complet.

6. ACCIDENTAL RELEASE MEASURES

6.MESURES DE LIBÉRATION ACCIDENTELLE

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Précautions personnelles

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

Évitez tout contact avec la peau, les yeux ou les vêtements. Assurer une ventilation adéquate. Utilisez de l'équipement de protection individuelle au besoin. Évacuer le personnel vers des zones sûres.

Other Information

Autres informations

Refer to protective measures listed in Sections 7 and 8

Se référer aux mesures de protection énumérées aux articles 7 et 8

Environmental Precautions

Précautions environnementales

Refer to protective measures listed in Sections 7 and 8.

Se référer aux mesures de protection énumérées aux articles 7 et 8

Methods for cleaning up

Méthodes de nettoyage

Pick up and transfer to properly labeled containers

Ramassage et transfert dans des contenants correctement étiquetés

Methods for Containment

Méthodes de confinement

Prevent further leakage or spillage if safe to do so.

Empêchez d'autres fuites ou déversements s'ils sont sécuritaires.

Methods for cleaning up

Méthodes de nettoyage

Pick up and transfer to properly labeled containers.

Ramassage et transfert dans des contenants correctement étiquetés.

7. HANDLING AND STORAGE

7.MANIPULATION ET STOCKAGE

Precautions for safe handling

Précautions pour une manipulation sécuritaire

Handling

Manipulation

In case of rupture. Use personal protection equipment. Avoid contact with skin, eyes or clothing.

En cas de rupture. Utilisez de l'équipement de protection individuelle. Évitez tout contact avec la peau, les yeux ou les vêtements.

Conditions for safe storage, including any incompatibilities

Conditions d'entreposage sécuritaire, y compris les incompatibilités

Storage

Stockage

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

Gardez les contenants bien fermés dans un endroit sec, frais et bien aéré.

Incompatible Products

Produits incompatibles

Strong acids. Strong oxidizing agents. Strong bases.

Des acides forts. Agents oxydants forts. Des bases solides.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8. CONTRÔLES D'EXPOSITION/PROTECTION PERSONNELLE****Control parameters**

Paramètres de contrôle

Exposure Guidelines

Ligne directrice sur l'exposition

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Lithium Cobalt Oxide 12190-79-3	TWA: 0.02 mg/m ³		
Graphite 7782-42-5	TWA: 2 mg/m ³ respirable fraction 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: 1 mg/ mg/m ³ Cu dust and mist	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
Aluminum 7429-90-5	TWA: 1 mg/m ³ respirable fraction	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 (vacated) TWA: 5 mg/m ³ Al Aluminum	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
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

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value

Occupational Safety and Health

Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL:

Occupational Safety and Health Administration - Limites d'exposition admissibles immédiatement dangereuses pour la vie ou la santé

Other Exposure GuidelinesAutres lignes directrices sur
l'expositionVacated 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 parametersLimites libérées révoquées par la décision de la Cour d'appel dans l'affaire
AFL-CIO c. OSHA, 965 F.2d 962 (11e cir., 1992) Voir l'article 15 des paramètres
nationaux de contrôle de l'exposition

Appropriate engineering controls

Contrôles techniques appropriés

Engineering Measures

Mesures techniques

Showers

Douches

Eyewash stations

Stations de lavage des yeux

Ventilation systems

Systèmes de ventilation

Individual protection measures, such as personal protective equipment

Mesures de protection individuelles, telles que l'équipement de protection individuelle

Eye/Face Protection

Protection œil/visage

If splashes are likely to occur: Wear Safety glasses with side shields (or goggles). None required for consumer use.

Si des éclaboussures sont susceptibles de se produire: Portez des lunettes de sécurité avec des boucliers latéraux (ou des lunettes). Aucun n'est requis pour l'usage du consommateur.

Skin and Body Protection

Protection de la peau et du corps

Wear protective gloves and protective clothing. Long sleeved clothing.

Impervious gloves

Portez des gants de protection et des vêtements de protection. Vêtements à manches longues. Gants imperméables

Respiratory Protection

Protection respiratoire

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

Aucun équipement de protection n'est nécessaire dans des conditions d'utilisation normales. Si les limites d'exposition sont dépassées ou si l'irritation est ressentie, une ventilation et une évacuation peuvent être nécessaires.

Hygiene Measures

Mesures d'hygiène

Handle in accordance with good industrial hygiene and Safety practice.

Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

Poignée conformément aux bonnes pratiques d'hygiène et de sécurité. Ne mangez pas, ne buvez pas ou ne fumez pas lorsque vous utilisez ce produit. Enlever les vêtements contaminés et les laver avant de les réutiliser. Évitez tout contact avec la peau, les yeux ou les vêtements. Portez des gants appropriés et une protection pour les yeux et le visage. Lavez-vous les mains avant de se briser et immédiatement après la manipulation du produit.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.PROPRIÉTÉS PHYSIQUES ET CHIMIQUES****Physical and Chemical Properties**

Propriétés physiques et chimiques

Physical State

État physique

Solid

solide

Appearance

Apparence

Silvery

Argenté

Color

Couleur

No information available

Aucune information disponible

Odor

Odeur

Odorless

Inodore

Odor Threshold

Seuil d'odeur

No information available

Aucune information disponible

Property

Propriété

Values

Valeurs

Remarks/ Method

Remarques/Méthode

Ph

Ph

No data available

Aucune information disponible

None known

Inconnu

Melting / freezing point

Point de fusion / point de congélation

No data available

Aucune information disponible

None known

Inconnu

Boiling point / boiling range

Point d'ébullition / gamme d'ébullition

No data available

Aucune information

None known

Inconnu

Flash Point Point d'éclair	disponible No data available Aucune information disponible	None known Inconnu
Evaporation Rate Taux d'évaporation	No data available Aucune information disponible	None known Inconnu
Flammability (solid, gas) Flammabilité (solide, gaz)	No data available Aucune information disponible	None known Inconnu
Flammability Limit in Air Limite d'inflammabilité dans l'air		
Upper flammability limit Limite supérieure d'inflammabilité	No data available Aucune information disponible	
Lower flammability limit Limite d'inflammabilité inférieure	No data available Aucune information disponible	
Vapor pressure Pression de vapeur	No data available Aucune information disponible	None known Inconnu
Vapor density Densité de vapeur	No data available Aucune information disponible	None known Inconnu
Specific Gravity Spécifique Gravité	No data available Aucune information disponible	None known Inconnu
Water Solubility Hydrosolubilité	No data available Aucune information disponible	None known Inconnu
Solubility in other solvents Solubilité dans d'autres solvants	No data available Aucune information disponible	None known Inconnu
Partition coefficient: n-octanol/water Coefficient de partition : n-octanol/eau	0.00001 0.00001	None known Inconnu
Autoignition temperature Température d'auto-allumage	No data available Aucune information disponible	None known Inconnu
Decomposition temperature Température de décomposition	No data available Aucune information disponible	None known Inconnu
Kinematic viscosity Viscosité cinématique	No data available Aucune information disponible	None known Inconnu
Dynamic viscosity Viscosité dynamique	0.00001 0.00001	None known Inconnu
Explosive properties Propriétés explosives	No data available Aucune information disponible	
Oxidizing Properties Propriétés oxydantes	No data available Aucune information disponible	
Other Information Autres informations		
Softening Point Point d'adoucissement	No data available Aucune information disponible	
VOC Content (%) Contenu DE COV (%)	No data available Aucune information disponible	
Particle Size Taille des particules	No data available Aucune information disponible	

10. STABILITY AND REACTIVITY

10.STABILITÉ ET RÉACTIVITÉ

Reactivity

Réactivité

No data available
Aucune donnée disponible

Chemical stability

Stabilité chimique

Stable under recommended storage conditions.
Stable dans les conditions d'entreposage recommandées.

Possibility of Hazardous Reactions

Possibilité de réactions dangereuses

None under normal processing.
Aucun dans le cadre d'un traitement normal.

Hazardous Polymerization

Polymérisation dangereuse

Hazardous polymerization does not occur.
La polymérisation dangereuse ne se produit pas.

Conditions to avoid

Conditions à éviter

None known based on information supplied.
inconnu s'appuyant sur les informations fournies.

Incompatible materials

Matériaux incompatibles

Strong acids. Strong oxidizing agents. Strong bases.
Des acides forts. Agents oxydants forts. Des bases solides.

Hazardous Decomposition Products

Produits de décomposition dangereux

Carbon oxides.
Des oxydes de carbone.

11. TOXICOLOGICAL INFORMATION

11.INFORMATIONS TOXICOLOGIQUES

Information on likely routes of exposure

Product Information

Informations sur les produits

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

Le produit ne présente pas de risque de toxicité aigu fondé sur des informations connues ou fournies en cas de rupture

Inhalation

Inhalation

Specific test data for the substance or mixture is not available.

Corrosive by inhalation.(based on components).

Les données d'essai spécifiques pour la substance ou le mélange ne sont pas disponibles. Corrosif par inhalation. (basé sur des composants).

Eye Contact

Contact visuel

Specific test data for the substance or mixture is not available.

Expected to be and irritant based on components. Irritating to eyes.

May cause redness, itching, and pain. May cause temporary eye irritation.

Les données d'essai spécifiques pour la substance ou le mélange ne sont pas disponibles. Prévu pour être irritant basé sur les composants. Irritant pour les yeux. Peut causer des rougeurs, des démangeaisons et de la douleur. Peut causer une irritation temporaire des yeux.

Skin Contact

Contact peau

Specific test data for the substance or mixture is not available.

Expected to be an irritant based on components. Irritating to skin.

Prolonged contact may cause redness and irritation.

Les données d'essai spécifiques pour la substance ou le mélange ne sont pas disponibles. On s'attend à être irritant basé sur des composants. Irritant pour la peau. Un contact prolongé peut causer des rougeurs et de l'irritation.

Ingestion

Ingestion

Specific test data for the substance or mixture is not available.

Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Les données d'essai spécifiques pour la substance ou le mélange ne sont pas

disponibles. L'ingestion peut causer une irritation des muqueuses. L'ingestion peut causer une irritation gastro-intestinale, des nausées, des vomissements et de la diarrhée.

Component Information

Informations sur les composants

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Iron 7439-89-6	= 984 mg/kg (Rat)	-	-
Graphite 7782-42-5	> 10000 mg/kg (Rat)	-	-
Nickel 7440-02-0	> 9000 mg/kg (Rat)	-	-
Carbon black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
Sodium carboxymethyl cellulose 9004-32-4	-	-	> 5800 mg/m3 (Rat) 4 h

Information on toxicological effects

Informations sur les effets toxicologiques

Symptoms

Symptômes

Erythema (skin redness). May cause redness and tearing of the eyes.
Coughing and/ or wheezing. Itching.
Érythème (rougeur de peau). Peut causer des rougeurs et des déchirures des yeux. Toux et/ou respiration sifflante. Démangeaisons.

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

Effets retardés et immédiats ainsi que effets chroniques de l'exposition à court et à long terme

Sensitization

Sensibilisation

May cause sensitization of susceptible persons. May cause sensitization by skin contact.
Peut provoquer la sensibilisation des personnes sensibles. Peut provoquer une sensibilisation par contact cutané.

Mutagenic Effects

Effets mutagènes

Carcinogenicity

Cancérogénicité

No information available
Aucune information disponible
The table below indicates whether each agency has listed any ingredient as a carcinogen
Le tableau ci-dessous indique si chaque organisme a inscrit un ingrédient comme cancérogène

Chemical Name	ACGIH	IARC	NTP	OSHA
Nickel 7440-02-0		Group 2B	Reasonably Anticipated	X
Carbon black 1333-86-4	A3	Group 2B		X

12. ECOLOGICAL INFORMATION

12. INFORMATIONS ÉCOLOGIQUES

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)
Iron 7439-89-6		96h LC50: = 13.6 mg/L (Morone saxatilis)		
Nickel 7440-02-0	72h EC50: = 0.18 mg/L (Pseudokirchneriella subcapitata) 96h EC50: 0.174 - 0.311 mg/L	96h LC50: > 100 mg/L (Brachydanio rerio) 96h LC50: = 1.3 mg/L (Cyprinus carpio) 96h LC50: = 10.4 mg/L (Cyprinus carpio)		48h EC50: > 100 mg/L 48h EC50: = 1 mg/L

	(Pseudokirchneriella subcapitata)			
Copper 7440-50-8	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: = 0.112 mg/L (Poecilia reticulata) 96h LC50: = 0.3 mg/L (Cyprinus carpio) 96h LC50: = 0.8 mg/L (Cyprinus carpio) 96h LC50: = 1.25 mg/L (Lepomis macrochirus) 96h LC50: = 0.052 mg/L (Oncorhynchus mykiss) 96h LC50: = 0.2 mg/L (Pimephales promelas) 96h LC50: < 0.3 mg/L (Pimephales promelas)		48h EC50: = 0.03 mg/L
Carbon black 1333-86-4				24h EC50: > 5600 mg/L

Persistence and Degradability

Persistance et dégradabilité
No information available.
Aucune information disponible.

Bioaccumulation

Bioaccumulation
No information available
Aucune information disponible.

Other adverse effects

Autres effets indésirables
No information available.
Aucune information disponible.

13. DISPOSAL CONSIDERATIONS

13. CONSIDÉRATIONS D'ÉLIMINATION

Waste treatment methods

Méthodes de traitement des déchets

Disposal methods

Méthodes d'élimination

Contaminated Packaging

Emballage contaminé

Should not be released into the environment.

Ne doit pas être libéré dans l'environnement.

Dispose of in accordance with federal, state and local regulations.

Disposer conformément aux réglementations fédérales, étatiques et locales.

US EPA Waste Number

Dispose of contents/containers in accordance with local regulations.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Nickel 7440-02-0	(hazardous constituent - no waste number)	Included in waste streams: F006, F039		

California Hazardous Waste Codes 141

Codes de déchets dangereux de la Californie 141

Chemical Name Nom chimique	California Hazardous Waste Déchets dangereux de la Californie
-------------------------------	--

Aluminum 7429-90-5	Ignitable powder Inflammables Poudre
Copper 7440-50-8	Toxic Toxiques
Nickel 7440-02-0	Toxic powder Ignitable powder

14. TRANSPORT INFORMATION

14. INFORMATIONS SUR LES TRANSPORTS

Note:

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"

Le transport des cellules et batteries primaires au lithium est réglementé par l'Organisation de l'aviation civile internationale, l'Association internationale du transport aérien, l'International Maritime Dangerous Goods Code et le département des Transports des États-Unis. Les batteries doivent répondre aux critères d'expédition suivants : 1. Les expéditions aériennes doivent satisfaire aux exigences indiquées dans la disposition spéciale A45 du Règlement sur les marchandises dangereuses de l'Association internationale du transport aérien. 2. Répondre aux exigences du département des Transports des États-Unis inscrits au 49 CFR 173.185. 3. Le transport de batteries au lithium primaires est interdit à bord des avions de passagers. Se référer au Registre fédéral le 15 décembre 2004 (Matières dangereuses; Interdiction de transport de batteries et de cellules de lithium primaires à bord d'aéronefs de passagers; Règle finale) Les batteries au lithium expédiées sous le titre de « batteries au lithium », « batteries au lithium emballées avec de l'équipement » ou « batteries au lithium contenues dans l'équipement » ne peuvent pas être classées comme « marchandises dangereuses » lorsqu'elles sont expédiées conformément à la « provision spéciale A45 de l'IATA-DGR » ou "disposition spéciale 188 du code IMO-IMDG"

DOT

Proper Shipping Name

Nom d'expédition approprié

Hazard Class

Catégorie de danger

TDG

MEX

ICAO

IATA

Proper Shipping Name

Nom d'expédition approprié

Hazard Class

Catégorie de danger

IMDG/IMO

Proper Shipping Name

Nom d'expédition approprié

Hazard Class

Catégorie de danger

EmS No.

NOT REGULATED

NON RÉGLEMENTÉ

NOT REGULATED

NON RÉGLEMENTÉ

N/A

N/A

Not regulated

NON RÉGLEMENTÉ

Not regulated

NON RÉGLEMENTÉ

Not regulated

NON RÉGLEMENTÉ

Not regulated

NON RÉGLEMENTÉ

Not regulated

NON RÉGLEMENTÉ

N/A

N/A

Not regulated

NON RÉGLEMENTÉ

NON-REGULATED PER SP 188

N/A

F-A, S-I

<u>RID</u>	Not regulated NON RÉGLEMENTÉ
<u>ADR</u>	Not regulated NON RÉGLEMENTÉ
<u>AND</u>	Not regulated NON RÉGLEMENTÉ

15. REGULATORY INFORMATION

15. INFORMATIONS RÉGLEMENTAIRES

International Inventories

Inventaires internationaux

TSCA	Complies Conforme
DSL	All components are listed either on the DSL or NDSL. Tous les composants sont répertoriés soit sur le DSL ou NDSL

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

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

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List Liste des substances domestiques

DSL/NDSL - Canadiennes/Liste des substances non domestiques

US Federal Regulations

Règlement fédéral des États-Unis

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

L'article 313 du Titre III de la Superfund Amendments and Reauthorization Act of 1986 (SARA). Ce produit contient un produit chimique ou chimique qui est assujéti aux exigences de déclaration de la Loi et du titre 40 du Code de réglementation fédérale, Partie 372

Chemical Name Nom chimique	CAS No CAS Nombre	Weight-% Poids-%	SARA 313 - Threshold Values % SARA 313 - Seuil Valeurs%
Nickel	7440-02-0	0.6	0.1
Aluminum	7429-90-5	4.36	1.0
Copper	7440-50-8	8.12	1.0

SARA 311/312 Hazard Categories

SARA 311/312 Catégories de dangers

Acute Health Hazard	No
Risque aigu pour la santé	non
Chronic Health Hazard	No
Risque chronique pour la santé	non
Fire Hazard	No
Incendie Risque	non
Sudden release of pressure hazard	No
Libération soudaine du risque de pression	non
Reactive Hazard	No
Risque réactif	non

CWA (Clean Water Act)

CWA (Loi sur l'eau propre)

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)

Ce produit contient les substances suivantes qui sont des polluants réglementés en vertu de la Loi sur l'eau propre (40 CFR 122,21 et 40 CFR 122,42)

Chemical Name Nom chimique	CWA - Reportable Quantities CWA -Rapportables Quantités	CWA - Toxic Pollutants CWA - Toxiques Polluants	CWA - Priority Pollutants CWA - Priorité Polluants	CWA - Hazardous Substances CWA - Dangereux Substances
Copper 7440-50-8		X	X	

Nickel 7440-02-0		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)

Ce matériel, tel qu'il est fourni, contient une ou plusieurs substances réglementées comme substance dangereuse en vertu de la Loi sur l'indemnisation et la responsabilité en matière d'indemnisation et de responsabilité environnementales globales (CERCLA) (40 CFR 302)

Chemical Name Nom chimique	Hazardous Substances RQs Substances dangereuses RQs	Extremely Hazardous Substances RQs Extrêmement dangereux Substances RQs	RQ
Nickel 7440-02-0	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Copper 7440-50-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Aluminum 7429-90-5			

US State Regulations

Règlement des États-Unis

California Proposition 65

Proposition de la Californie 65

This product contains the following Proposition 65 chemicals.

Ce produit contient les produits chimiques suivants de la Proposition 65

Chemical Name	California Proposition 65
Nickel - 7440-02-0	Carcinogen
Carbon black - 1333-86-4	Carcinogen

U.S. State Right-to-Know Regulations

Règlement sur le droit de savoir des États-Unis

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Lithium Cobalt Oxide (CoLiO2) 12190-79-3	X		X	X	X
Graphite 7782-42-5	X	X	X		
Copper 7440-50-8	X	X	X	X	X
Aluminum 7429-90-5	X	X	X	X	
Nickel 7440-02-0	X	X	X	X	X
Carbon black 1333-86-4	X	X	X		X

International Regulations

Règlement international

Mexico**National occupational exposure limits**

Limites nationales d'exposition professionnelle

Component Composant	Carcinogen Status Statut cancérogène	Exposure Limits Limites d'exposition
Graphite 7782-42-5		Mexico: TWA= 2 mg/m ³
Copper 7440-50-8		Mexico: TWA= 1 mg/m ³ Mexico: TWA= 0.2 mg/m ³ Mexico: STEL= 2 mg/m ³
Aluminum 7429-90-5		Mexico: TWA= 10 mg/m ³
Nickel 7440-02-0		Mexico: TWA 1 mg/m ³
Carbon black 1333-86-4		Mexico: TWA 3.5 mg/m ³ Mexico: STEL 7 mg/m ³

Mexico - Occupational Exposure Limits – Carcinogens

Mexico - Limites d'exposition professionnelle - Cancérogène

Canada
WHMIS Hazard Class
Classe DE danger WHMIS
Non-controlled
Non contrôlé

16. OTHER INFORMATION

16.AUTRES INFORMATIONS

Prepared By

Préparé par

Shenzhen Longting Technology Co., Ltd.

Revision Date

Date de révision

04-August-2021

Revision Note

Note de révision

No information available

Aucune information disponible

End of Safety Data Sheet

Feuille de données de fin de sécurité

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Safety Data Sheet

Name of Products: Rechargeable Li-ion Cell

Applicant: Dongguan Sunly Battery Technology Co., Ltd.

Factory: Dongguan Sunly Battery Technology Co., Ltd.

Tester <i>Perry Fu</i>	Reviewer <i>Jill Wen</i>	Approver <i>Sophie Wu</i>
Project Engineer	Senior Engineer	Chief Engineer

GUANGDONG UTL CO., LTD.



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Identification of the product and supplier	
Name of goods	Rechargeable Li-ion Cell
Type/Model	1150
Ratings	3.7V, 45mAh, 0.166Wh
Commissioned by	Dongguan Sunly Battery Technology Co., Ltd.
Commissioner address	Building 30th, Xin Tai Yang Industrial City, No.8 Xinyang Road, Lin Cun Community, Tangxia Town, Dongguan City, Guangdong Province, China
Manufacturer's name	Dongguan Sunly Battery Technology Co., Ltd.
Manufacturer address	Building 30th, Xin Tai Yang Industrial City, No.8 Xinyang Road, Lin Cun Community, Tangxia Town, Dongguan City, Guangdong Province, China
Inspection according to	OSHA GHS 《A Guide to The Globally Harmonized System of Classification and Labelling of Chemicals》 IATA DGR 《Dangerous Goods Regulations》 IMO IMDG CODE 《INTERNATIONAL MARITIME Dangerous Goods CODE》
Receiving date: 2021-08-15	Issue date: 2021-08-30



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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product name: Rechargeable Li-ion Cell

Model: 1150, 3.7V 45mAh 0.166Wh

Other means of identification

Synonyms:

Recommended use of the chemical and restrictions on use

Recommended Use:

Uses advised against:

- a) Do not dismantle, open or shred secondary cells or batteries.
- b) Do not expose cells or batteries to heat or fire. Avoid storage in direct sunlight.
- c) Do not short-circuit a cell or battery. Do not store cells or batteries haphazardly in a box or drawer. where they may short-circuit each other or be short-circuited by other metal objects.
- d) Do not remove a cell or battery from its original packaging until required for use.
- e) Do not subject cells or batteries to mechanical shock.
- f) In the event of a cell leaking, do not allow the liquid to come in contact with the skin or eyes. If contact has been made, wash the affected areas with copious amounts of water and seek medical advice.
- g) Do not use any charger other than that specifically provided for use with the equipment.
- h) Observe the plus(+) and minus(-) marks on the cell, battery and equipment and ensure correct use.
- i) Do not use any cell or battery which is not designed for use with the equipment.
- j) Do not mix cells of different manufacturer, capacity, size or type within a device.
- k) Battery usage by children should be supervised.
- l) Seek medical advice immediately if a cell or a battery has been swallowed.
- m) Always purchase the battery recommended by the device manufacturer for the equipment.
- n) Keep cells and batteries clean and dry.
- o) Wipe the cell or battery terminals with a clean dry cloth if they become dirty.
- p) Secondary cells and batteries need to be charged before use. Always use the correct charger and refer to the manufacturer's instructions or equipment manual for proper charging instructions.
- q) Do not leave a battery on prolonged charge when not in use.
- r) After extended periods of storage, it may be necessary to charge and discharge the cells or batteries several times to obtain maximum performance.
- s) Retain the original product literature for future reference.
- t) Use only the cell or battery in the application for which it was intended.
- u) When possible, remove the battery from the equipment when not in use.
- v) Dispose of properly.

Details of the Manufacturer of the safety data sheet:

Name: Dongguan Sunly Battery Technology Co., Ltd.

Address: Building 30th, Xin Tai Yang Industrial City, No.8 Xinyang Road, Lin Cun Community, Tangxia Town, Dongguan City, Guangdong Province, China

Telephone number of the supplier: +86-769-87285025

Address: Landing Testing Building, No.18 Center Road of Yayuan Industrial Zone, Nancheng District, Dongguan, Guangdong, China.

Tel: 86-769-3893 3228

Email: utl@gdutl.com

http: //www.gdutl.com



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Fax: --

Postcode: 523710

E-mail address: RD-qinguofu@sunlybattery.com

Emergency telephone number: +86-13416653405

Company Emergency Phone Number: +86-769-87285025

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). This product is an article which is a sealed battery and as such does not require an MSDS per the OSHA hazard communication standard unless ruptured. The hazards indicated are for a ruptured battery.

Classification of the substance or mixture

Classification according to GHS

ACUTE TOXICITY-ORAL

Hazard category: 4

Signal word: Warning

Hazard statement: Harmful if swallowed

Pictogram:



Prevention: Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response: Call a Poison center or doctor/physician if you feel unwell

Storage:

Disposal: Dispose of contents/container in accordance with local/national regulations

ACUTE TOXICITY-DERMAL

Hazard category: 4

Signal word: Warning.

Hazard statement: Harmful in contact with skin

Pictogram:



Prevention: Wear protective gloves/protective clothing

Response: Call a Poison center or doctor/physician if you feel unwell

Storage:

Disposal: Dispose of contents/container in accordance with local/national regulations

SKIN CORROSION/IRRITATION

Hazard category: 2

Signal word: Warning.

Hazard statement: Causes skin irritation.



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Pictogram:



Prevention: Wash thoroughly after handling. Wear protective gloves.

Response: Take off contaminated clothing and wash it before reuse.

Storage:

Disposal:

SENSITIZATION-SKIN

Hazard category: 1A

Signal word: Warning

Hazard statement: May cause an allergic skin reaction.

Pictogram:



Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves.

Response: If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Storage:

Disposal: Dispose of contents/container in accordance with local/national regulations.

EXPLOSIVES (CONTINUED)

Hazard category: Division 1.4

Signal word: Warning

Hazard statement: Fire or project hazard.

Pictogram:



Prevention: Keep away from heat/sparks/open flames/hot surfaces.-No smoking.

Response: In case of fire: evacuate area. Explosion risk in case of fire. Do NOT fight fire reaches explosives.

Storage: Store in accordance with local/regional/national/international regulations.

Disposal: Dispose of contents/container in accordance with local/national regulations.

FLAMMABLE SOLIDS

Hazard category: 2

Signal word: Warning

Hazard statement: Flammable solid.

Pictogram:



Prevention: Keep away from heat/sparks/open flames/hot surfaces.-No smoking.

Response: In case of fire: Use to extinguish.

Storage:

Disposal:



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description:

Product: Consisting of the following components

Common Chemical Name	Chemical Formula	Concentration (%)	CAS Number
Lithium Cobalt Oxide	LiCoO_2	40.2	12190-79-3
Polyvinylidene Fluoride (PVDF)	$(\text{C}_2\text{H}_2\text{F}_2)_n$	0.8	24937-79-9
Aluminium	Al	5.8	7429-90-5
Graphite	$\text{C}_{24}\text{X}_{12}$	19.8	7782-42-5
Styrene-Butadiene Rubber (SBR)	$(\text{C}_8\text{H}_8.\text{C}_4\text{H}_6)_x$	1.1	61789-96-6
Carboxymethylcellulose	$\text{C}_6\text{H}_{12}\text{O}_6$	0.3	9000-11-7
Copper	Cu	10.7	7440-50-8
Nickel	Ni	1.0	7440-02-0
Lithium Hexafluorophosphate	LiPF_6	20.3	21324-40-3

Note: CAS number is Chemical Abstract Service Registry Number.

N/A=Not apply.



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4. FIRST-AID MEASURES

First aid measures

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

Skin Contact Remove contaminated clothing and shoes. Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed

Swallowing Do not induce vomiting. Get medical attention.

Most Important Symptoms/Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Test symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

CO₂, dry chemical powder, water spray.

Unsuitable Extinguishing Media: No information available.

Specific Hazards Arising from the Chemical

Formation of toxic gases is possible during heating or case of fire.

In case of fire, the following can be released:

Carbon monoxide (Co)

Carbon dioxide

Other irritating and toxic gases.

Hazardous Combustion Products

Carbon oxides.

Explosion Date

Sensitivity to Mechanical Impact No

Sensitivity to Static Discharge No

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. For example: Wear self-contained respiratory protective device.

Wear suitable protective clothing and eye/face protection.

Special hazards arising from the substance or mixture:

Battery may burst and release hazardous decomposition products when exposed to a fire situation.

Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature (>150°C). When damaged or abused (e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.



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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes.

Refer to section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas.

Environmental Precautions

Environmental Precautions Refer to protective measures listed in Sections 7 and 8.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

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 Use personal protective equipment. Dam up. Cover liquid spill with sand, earth or other Non combustible absorbent material. Pick up and transfer to properly labelled containers.

Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Wash thoroughly after handling. Use this material with adequate ventilation.

The Product is not explosive.

Conditions for safe storage, including any incompatibilities

If the Lithium-ion Battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the Lithium-ion Battery Periodically.

3 months: -20°C~ +45°C, 45 to 85% RH

And recommended at -20°C~ +25°C for long period storage.

The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more.

The voltage for a long time storage shall be 3.7-4.2V range.

Do not storage Lithium-ion Battery haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.

Keep out of reach of children.

Do not expose Lithium-ion Polymer Battery to heat or fire. Avoid storage in direct sunlight.

Do not store together with oxidizing and acidic materials.

Keep ignition sources away- Do not smoke.

Store in cool, dry and well-ventilated place.

Incompatible Products None known.



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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Ingredients with limit values that require monitoring at the workplace:

12190-79-3 Lithium Cobalt Oxide

TLV(USA)	0.02mg/m ³
MAK(Germany)	0.1mg/m ³

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Measures Showers

Eyewash stations

Ventilation systems

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible Exposure limits. Ensure or adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/Face Protection:



Tightly sealed goggles

Body protection:

Protective work clothing.

Skin protection:



Protective gloves

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is preparation of several substances, the resistance of the glove material can not to be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by manufacturer of the Protective gloves and has to be observed.

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.

Hygiene Measures Handle in accordance with good Industrial hygiene and safety practice.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Physician State	Form: Round
	Colour: Silver
	Odour: Odourless
	Odor Threshold: No information available
Change in condition:	
pH, with indication of the concentration	Not determined.
Melting Point/freezing point	Not determined.
Initial boiling point and Boiling range:	Not determined.
Flash Point	Not determined.
Evaporation rate	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapor Pressure:	Not determined.
Vapor Density:	Not determined.
relative density:	Not determined.
Solubility in Water:	Not determined.
Solubility in other solvents	Not determined.
n-octanol/water partition coefficient	Not determined.
Auto-ignition temperature	Product is not self-igniting.
Decomposition temperature	Not determined.
Odour threshold	Not determined.
Evaporation rate	Not determined.
Viscosity	Not determined.
Other Information	No further relevant information available.

10. STABILITY AND REACTIVITY

Reactivity: Stable under recommended storage and handling conditions (see section 7, Handling and storage)

Chemical stability: Stable Under normal conditions of use, storage and transport.

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

Possibility of Hazardous Reactions: None under normal processing.

Hazardous Polymerization: Hazardous polymerization does not occur.

Conditions to avoid: Strong heating, fire, Incompatible materials.

Incompatible materials: Strong oxidizing agents. Strong acids. Base metals.

Hazardous Decomposition Products: Carbon oxides, Other irritating and toxic gases.



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11. TOXICOLOGICAL INFORMATION

Acute toxicity: No data available.

LD/LC50 values relevant for classification:

Not available.

Skin corrosion/irritation: No irritant effect.

Serious eye damage/irritation: Cause serious eye irritation.

Respiratory or skin sensitization: No sensitizing effects known.

Specific target organ system toxicity: No information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): No information available.

12. ECOLOGICAL INFORMATION

Toxicity:

Acquatic toxicity:

No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulation potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation: Must not be disposed together with household garbage.

Do not allow product to reach sewage system

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.



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14. TRANSPORT INFORMATION

Land transport

ADR/RID class: Not regulated.

UN-Number: UN3480 or UN3481

Maritime transport

IMDG Class: N/A

UN Number: UN3480 or UN3481

Marine pollutant: No

Air transport

ICAO/IATA Class: N/A

UN/ID Number: UN3480 or UN3481

Environmental hazards: Not applicable.

Special precautions for user: Not applicable.

Transport/Additional information: Not restricted goods according to the above specifications.

The Lithium-ion Battery had been tested according to the requirements of the UN manual of tests and Criteria, Part III, subsection 38.3;

The goods shall be complied with the requirements of Section II (or Section IB) of Packing Instructions 965~967 of 62nd DGR Manual of IATA (2021 Edition) and Special Provision 188 of IMDG CODE (Amdt. 39-18) 2018 Edition.

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking.

The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

Meets the requirements of 49CFR173.185 to be transported as non-dangerous goods for road, rail, air, and vessel (Effective August 6, 2014 per HM224F)

The package must be handled with care and that a flammability hazard exists if the package is damaged;



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15. REGULATORY INFORMATION

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

EU Regulation:

Authorisations: No information available.

Restrictions on use: No information available.

Regulatory information

CAS NO.	EU (EINECS)	US (TSCA)	Japan (ENCS)	Canada (DSL/ NDSL)	Australia (AICS)	Korea (ECL)	China (IECSC)
12190-79-3	Listed	Not listed	Not listed	NDSL	Not listed	Not listed	Not listed
7429-90-5	Listed	Listed	Listed	DSL	Listed	Listed	Listed
24937-79-9	Listed	Listed	Listed	DSL	Listed	Listed	Listed
7782-42-5	Not listed	Listed	Not listed	DSL	Listed	Listed	Listed
7440-50-8	Not listed	Listed	Not listed	DSL	Listed	Listed	Listed
9003-55-8	Listed	Listed	Listed	DSL	Listed	Listed	Listed
21324-40-3	Listed	Not listed	Not listed	Not listed	Not listed	Not listed	Listed
96-49-1	Listed	Listed	Not listed	NDSL	Not listed	Not listed	Not listed
616-38-6	Listed	Listed	Listed	DSL	Listed	Listed	Listed
623-53-0	Listed	Listed	Listed	DSL	Listed	Listed	Listed
7440-02-0	Listed	Listed	Listed	DSL	Listed	Listed	Listed

Chemical safety assessment A Chemical Safety Assessment has not been carried out

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant Phrases:

R20/22: Harmful by inhalation and if swallowed.

R36: Irritating to eyes.

H302: Harmful if swallowed.

H332: Harmful if inhaled.



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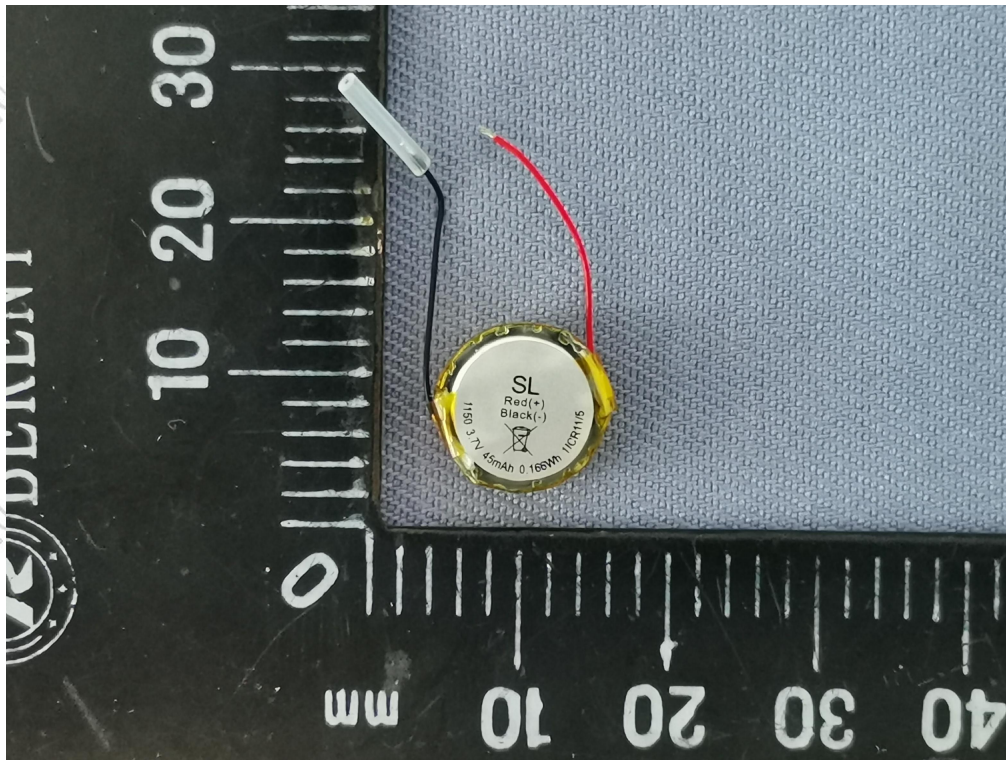


Figure 1 Overall view I of cell

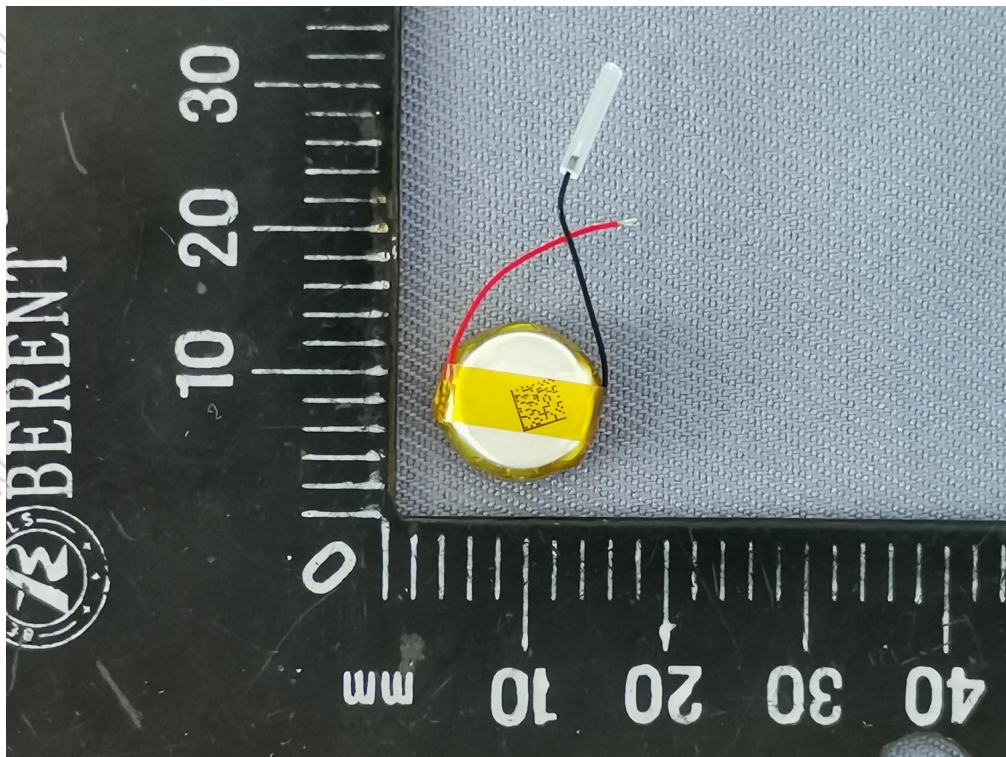


Figure 2 Overall view II of cell



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Important

1. Nobody is allowed to photocopy or partly photocopy this test report without written permission of UTL.
2. The test report is invalid without the signatures of Approver, Reviewer and Tester.
3. The test report is invalid if altered.
4. Objections to the test report must be submitted to UTL within 15 days.
5. Throughout this report a point is used as the decimal separator.
6. The test report is valid for the tested samples only.
7. The test report does not grant applicant the use of UTL name, trademark or label.
8. UTL's liability under no circumstance will exceed the testing fee received from applicant for test conducted hereof this testing report.
9. The test data and results do not have social proof function.

End of Test Report

