Test Report -Products



Report No.:	158279069a 001	Page 1 of 16
Client:	ECOFLOW INNOVATION LTD.	
Contact Information:	Floor 1, Building E-1, Jiehe Industrial City, Shuitia Street, Baoan District, Shenzhen	n Community, Shiyan
Test item(s):	Non toys	
Identification/ Model No(s):	Rechargeable Li-ion Battery Pack	
Sample obtaining method:	Sending by customer	
Condition at delivery:	Test item complete and undamaged.	
Sample Receiving date:	2023-09-16	
Testing Period:	2023-09-15 to 2023-10-12	
Place of testing:	Chemical laboratory Hong Kong	
Test Specification:		Test result:

Material Safety Data Sheets (MSDSs) according to OSHA's Hazard Communication Standard (HCS).

Refer to result page

## Other information:

As per request, the SDS is prepared based on the composition provided by the client.

This review is sub-contracted to a qualified toxicologist.

For and on behalf of TÜV Rheinland Hong Kong Ltd.

Amenda Yung / Senior CS Manager

2023-10-12

Date

Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.

This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

"Decision Rule" document announced in our website (https://www.tuv.com/landingpage/en/qm-gcn/) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

TÜV Rheinland Hong Kong Ltd.:3-4/F.,Fou Wah Industrial Building,10-16 Pun Shan Street,Tsuen Wan,New Territories,Hong Kong Tel.: (852) 2192 1000 Fax: (852) 2192 1003 Mail: service-gc@tuv.com · Web: <u>www.tuv.com</u>

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (According to HCS-2012 APPENDIX D TO §1910.1200) Issue date: 9/22/2023 Revision date: 9/22/2023 Version: 1.0

SECTION 1: Identification	
1.1. Identification	
Product form Trade name	: Article : Rechargeable Li-ion Battery Pack
1.2. Recommended use and restriction	s on use
Recommended use Restrictions on use	: Storage Energy : No information available.
1.3. Supplier	
Supplier EcoFlow Innovation Itd. Floor 1, Building E-1, Jiehe Industrial City, Shu Street, Baoan District, Shenzhen 518108 Taylor TANG: +86-13575003981 T 0755-89686665 Itang@highpowertech.com	Importer         EcoFlow Technology Inc         itian Community, Shiyan         200 CONTINENTAL DRIVE SUITE 401, OFFICE 434, NEW AR DE19713 USA
1.4. Emergency telephone number	
SECTION 2: Hazard(s) identificatio 2.1. Classification of the substance or GHS US classification	
Not applicable under normal use in accordance	e with Occupational Safety & Health Administration (OSHA) 29 CFR 1910.1200.
2.2. GHS Label elements, including pro	cautionary statements
GHS US labeling Hazard pictograms (GHS US) Signal word (GHS US) Hazard statements (GHS US) Precautionary statements (GHS US)	<ul> <li>Not applicable under normal use.</li> </ul>
2.3. Other hazards which do not result	in classification
Other hazards	: This product is safe with normal use. Exposure to the ingredients contained within and/or their combustion products could be harmful. Risk of exposure occurs only if the battery is mechanically, thermally, or electrically abused and the enclosure is ruptured. If this occurs, exposure to electrolyte can occur by inhalation, ingestion, eye contact, and skin contact. The battery should not be opened or burned.
2.4. Unknown acute toxicity (GHS US)	
No additional information available	

## SECTION 3: Composition/Information on ingredients

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## 3.1. Substances

## Not applicable

3.2. Mixtures		
Name	Product identifier	%
Phosphoric acid, iron(2+) lithium salt (1:1:1)	CAS-No.: 15365-14-7	≤ 39.8
Graphite	CAS-No.: 7782-42-5	≤ 19.8
Other Material	CAS-No.: -	≤ 10.3
Copper	CAS-No.: 7440-50-8	≤ 6.2
1,3-Dioxolan-2-one	CAS-No.: 96-49-1	≤ 4
Dimethyl carbonate	CAS-No.: 616-38-6	≤ 4
Aluminum	CAS-No.: 7429-90-5	≤ 3.8
Aluminum Case	CAS-No.: -	≤ 3.6
Anode Cover	CAS-No.: -	≤ 2.5
Cathode Cover	CAS-No.: -	≤ 2.1
Phosphate(1-), hexafluoro-, lithium	CAS-No.: 21324-40-3	≤ 1.9
1,1-Difluoroethylene polymer	CAS-No.: 24937-79-9	≤ 0.8
Styrene-butadiene copolymer	CAS-No.: 9003-55-8	≤ 0.8
Sodium carboxymethyl cellulose	CAS-No.: 9004-32-4	≤ 0.4
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Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures		
4.1. Description of first aid measures		
First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention. Contact of electrolyte and extruded lithium with skin and eyes should be avoided.	
First-aid measures after inhalation	: Not an expected route of exposure.	
First-aid measures after skin contact	: Not an expected route of exposure.	
First-aid measures after eye contact	: Not an expected route of exposure.	
First-aid measures after ingestion	: Not an expected route of exposure.	
4.2. Most important symptoms and effects (acute and delayed)		
Symptoms/effects	: No information available.	
4.3. Immediate medical attention and special treatment, if necessary		

Treat symptomatically.

SECTION 5: Fire-fighting measures		
5.1. Suitable (and unsuitable) extinguishing	media	
Suitable extinguishing media	: Water, dry chemical powder, carbon dioxide (CO2) and foam are most effective to extinguish a battery fire.	
Unsuitable extinguishing media	: Do not use small quantities of water. If water spray is used, it must be continually applied until fire is extinguished.	

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5.2. Specific hazards arising from the chemical		
Fire hazard Hazardous decomposition products in case of fire	<ul> <li>Battery may vent when subjected to excessive heat-exposing, fire or over voltage condition. Risk of explosion by fire is anticipated if batteries are disposed of in fire. Firefighting water runoff and dilution water may be toxic and corrosive and may cause adverse environmental impacts. Burning cells may ignite other cells or objects within close proximity.</li> <li>If a cell vents and exposes lithium hexafluorophosphate mixed with water vapor, this could create a poisonous gas of hydrogen-fluoride gas. Degradation of the cell by heat may produce hazardous fumes of lithium, cobalt-manganese, hydrofluoric acid, hydrogen and oxides of carbon, aluminum, lithium, copper and cobalt.</li> </ul>	
5.3. Special protective equipment and precautions for fire-fighters		
Firefighting instructions	: Large lithium-ion battery fires should only be extinguished by properly equipped fire fighters with training specific to lithium ion battery fires. Approach from upwind. Access forbidden to unauthorized personnel. Appropriate self-contained breathing apparatus may be required. Avoid breathing (dust, vapor, mist, gas). Collect contaminated extinguishing water separately and must not enter the sewage system.	
Protection during firefighting	: Wear NIOSH/MSHA/EN469-approved self-contained breathing apparatus (SCBA) and protective clothing when fighting chemical fires.	

SECTION 6: Accidental release measures		
6.1. Personal precautions, protective equipment and emergency procedures		
6.1.1. For non-emergency personnel		
Emergency procedures	: Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.	
6.1.2. For emergency responders		
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".	
Emergency procedures	: Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray. Remove all sources of ignition	
6.2. Environmental precautions		
Avoid release to the environment. Notify authorities if product enters sewers or public waters.		
6.3. Methods and material for containment and cleaning up		
Methods for cleaning up	: Add neutralizer/absorbent, e.g. sand or vermiculite, to spill area. Sweep or shovel spilled	

Methods for cleaning up Other information	<ul> <li>Add neutralizer/absorbent, e.g. sand or vermiculite, to spill area. Sweep or shovel spilled material and absorbent and place in approved container. Dispose of any non-recyclable materials in accordance with local, state, provincial or federal regulations.</li> <li>Dispose of materials or solid residues at an authorized site.</li> </ul>
6.4. Reference to other sections	
For further information refer to section 13.	

SECTION 7: Handling and storage
7.1. Precautions for safe handling

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Precautions for safe handling Hygiene measures	<ul> <li>Avoid shorting the battery. Do not immerse in water. Do not disassemble or deform the battery. Do not expose to, or dispose of the battery in fire. Avoid excessive physical shock or vibration. Keep out of the reach of children. Battery must be charged in an approved charger. Never use a modified or damaged charger. Use for specified product applications only. Store in a cool, dry and well-ventilated area. Never use a battery that has suffered abuse. Refer to data sheet for safe operating instructions.</li> <li>Do not eat, drink or smoke when using this product. Always wash hands after handling the product.</li> </ul>
7.2. Conditions for safe storage, including	any incompatibilities
Storage conditions	: Store cell in a dry location. To minimize any adverse effects on battery performance it is

can result in shortened cell life. Keep out of reach of children.

recommended that the cells be kept at room temperature (25°C +/- 5°C). Elevated temperatures

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

Graphite (7782-42-5)			
USA - ACGIH - Occupational Exposure Lim	its		
ACGIH OEL TWA	CGIH OEL TWA 2 mg/m <sup>3</sup> (all forms except graphite fibers-respirable particulate matter)		
USA - OSHA - Occupational Exposure Limits			
OSHA PEL TWA	<ul> <li>15 mg/m³ (synthetic-total dust)</li> <li>5 mg/m³ (synthetic-respirable fraction)</li> <li>15 mppcf (natural-respirable dust)</li> </ul>		
USA - IDLH - Occupational Exposure Limit	USA - IDLH - Occupational Exposure Limits		
IDLH 1250 mg/m <sup>3</sup> (Graphite (natural))			
USA - NIOSH - Occupational Exposure Limits			
NIOSH REL TWA	2.5 mg/m³ (natural-respirable dust)		
Copper (7440-50-8)			
USA - ACGIH - Occupational Exposure Limits			
ACGIH OEL TWA	0.2 mg/m³ (fume)		
USA - OSHA - Occupational Exposure Limit	its		
OSHA PEL TWA	0.1 mg/m³ (fume) 1 mg/m³ (dust and mist)		
USA - IDLH - Occupational Exposure Limits			
IDLH	100 mg/m <sup>3</sup> (dust, fume and mist)		
USA - NIOSH - Occupational Exposure Limits			
NIOSH REL TWA	1 mg/m³ (dust and mist) 0.1 mg/m³ (fume)		
Aluminum (7429-90-5)			
USA - ACGIH - Occupational Exposure Limits			
ACGIH OEL TWA	1 mg/m <sup>3</sup> (respirable particulate matter)		
ACGIH chemical category	Not Classifiable as a Human Carcinogen		
USA - OSHA - Occupational Exposure Limits			

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Aluminum (7429-90-5)	
OSHA PEL TWA	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)
8.2. Appropriate engineering controls	
Appropriate engineering controls :	Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fume and vapor.
Environmental exposure controls :	Avoid release to the environment.
8.3. Individual protection measures/Personal	protective equipment
Hand protection:	
	n and nitrile, neoprene, or natural rubber gloves when handling an open or leaking battery. within 30 minutes of obvious contamination by electrolyte. Remove dirty gloves by appropriate
Eye protection:	
Not necessary under normal conditions. In case of battery rupture or leakage, wear long sleeve	d clothing.
Skin and body protection:	
Not necessary under normal conditions. In case of battery rupture or leakage, wear	
Respiratory protection:	
Not necessary under normal conditions. In case of battery venting or rupture, inside an enclose	d space, use NIOSH approved or equivalent self-contained breathing apparatus.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Color	1	Black and grey
Odor	1	Odorless
Odor threshold	:	No data available
рН	:	No data available
Melting point	:	No data available
Freezing point	1	Not applicable
Boiling point	:	No data available
Flash point		Not applicable
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	1	Non flammable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	1	No data available
Density	:	4.197 g/cm <sup>3</sup>
Solubility	1	No data available

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Partition coefficient n-octanol/water (Log Pow)	<ul> <li>Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7): &gt; 0.564 (at 20 °C)</li> <li>1,3-Dioxolan-2-one (96-49-1): 0.11 (at 20 °C (at pH &gt;5.33-&lt;5.79)</li> <li>Dimethyl carbonate (616-38-6): 0.354 (at 20 °C (at pH &gt;6.5-&lt;7.5)</li> </ul>
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

## **SECTION 10: Stability and reactivity**

## 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

## 10.2. Chemical stability

### Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Avoid mechanical or electrical abuse, including external short circuit of battery, deformation by crush, direct sunlight, high humidity, temperatures exceeding 60°C, puncture, sources of ignition, or installation with incorrect polarity.

### **10.5. Incompatible materials**

Strong bases, combustible organic materials, reducing agents, strong oxidizers, and sea water or other electrically conductive liquids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. A compromised battery may emit irritating or toxic fumes and gases, including metallic oxide, hydrogen fluoride, carbon monoxide, and carbon monoxide.

SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
Acute toxicity (dermal)	Not classified Not classified Not classified	
Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)		
LD50 dermal rat	> 2000 mg/kg	
LC50 Inhalation - Rat	> 3.2 mg/l/4h	
Graphite (7782-42-5)		
LC50 Inhalation - Rat	> 2000 mg/m³ (Exposure time: 4 h)	

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Sodium carboxymethyl cellulose (9004-32-4)			
LD50 oral rat	27000 mg/kg		
LC50 Inhalation - Rat	> 5800 mg/m³ (Exposure time: 4 h)		
1,3-Dioxolan-2-one (96-49-1)			
LD50 dermal rat	> 2000 mg/kg		
LD50 dermal rabbit	> 26420 mg/kg		
LC50 Inhalation - Rat	> 730 mg/m³ (Exposure time: 8 h)		
Dimethyl carbonate (616-38-6)	1		
LD50 oral rat	> 5000 mg/kg		
LD50 dermal rabbit	> 2000 mg/kg		
LC50 Inhalation - Rat	> 5.36 mg/l air		
Phosphate(1-), hexafluoro-, lithium (21324-40	-3)		
LD50 oral rat	50 – 300 mg/kg		
Copper (7440-50-8)			
LC50 Inhalation - Rat	> 5.11 mg/l/4h		
Aluminum (7429-90-5)			
LC50 Inhalation - Rat	> 0.888 mg/l/4h		
Skin corrosion/irritation :	Not classified		
Serious eye damage/irritation :	Not classified		
Respiratory or skin sensitization :	Not classified		
	Not classified		
	Not classified		
Styrene-butadiene copolymer (9003-55-8)			
IARC group	3 - Not classifiable		
Reproductive toxicity :	Not classified		
Phosphate(1-), hexafluoro-, lithium (21324-40	-3)		
NOAEL (animal/male, F0/P)	500 mg/kg		
STOT-single exposure :	Not classified		
STOT-repeated exposure :	Not classified		
Graphite (7782-42-5)			
NOAEC (inhalation,rat,dust/mist/fume,90 days) 0.000279 mg/l air			
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.		
1,3-Dioxolan-2-one (96-49-1)			
NOAEL (oral,rat,90 days)	150 mg/kg		
Phosphate(1-), hexafluoro-, lithium (21324-40	-3)		
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.		
Aspiration hazard :	Not classified		
Symptoms/effects :	No information available.		

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SECTION 12: Ecological information		
12.1. Toxicity		
Hazardous to the aquatic environment, short-term : (acute)	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. Not classified Not classified	
Graphite (7782-42-5)		
LC50 - Fish	> 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)	
EC50 - Crustacea	> 100 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae 19 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)		
NOEC (chronic)	47 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
1,3-Dioxolan-2-one (96-49-1)		
LC50 - Fish	> 100 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: ECHA)	
Dimethyl carbonate (616-38-6)		
LC50 - Fish	≥ 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)	
EC50 - Crustacea	> 100 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
NOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
Phosphate(1-), hexafluoro-, lithium (21324-40-	3)	
EC50 96h - Algae	<ul> <li>&gt; 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)</li> </ul>	
NOEC chronic fish	4 mg/l Test organisms (species): Duration: '21 d'	
Copper (7440-50-8)		
EC50 - Crustacea	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])	
LC50 - Fish	< 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)	
EC50 96h - Algae	0.031 – 0.054 mg/l (Species: Pseudokirchneriella subcapitata [static])	
12.2. Persistence and degradability		

## No additional information available

12.3. Bioaccumulative potential

Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)		
Partition coefficient n-octanol/water (Log Pow)	> 0.564 (at 20 °C)	
1,3-Dioxolan-2-one (96-49-1)		
Partition coefficient n-octanol/water (Log Pow)	0.11 (at 20 °C (at pH >5.33-<5.79)	
Dimethyl carbonate (616-38-6)		
Partition coefficient n-octanol/water (Log Pow)	0.354 (at 20 °C (at pH >6.5-<7.5)	

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### 12.4. Mobility in soil

## No additional information available

## 12.5. Other adverse effects

Products released into the natural environment will slowly degrade and may release harmful or toxic substances. Cells are not intended to be released into water or on land but should be disposed or recycled according to local regulations.

SECTION 13: Disposal considerations	
13.1. Disposal methods	
Waste treatment methods	: Cell recycling is encouraged. The battery packs internal cell's contents should not be released into the environment, do not dump into any sewers, on the ground or into any body of water. Do not dispose of battery packs in fire. Used battery packs should be stored in their original packaging. Ensure packs are stored in a manner to prevent short circuit of the cells. Battery pack should be fully discharged before recycling. Do break battery pack open before disposal. Dispose of contents/container in accordance with licensed collector's sorting instructions.

## **SECTION 14: Transport information**

## In accordance with DOT / TDG / IMDG / IATA

14.1. UN number	
DOT NA No UN-No. (TDG) UN-No. (IMDG) UN-No. (IATA)	: UN3480 : UN3480 : 3480 : 3480
14.2. UN proper shipping name	
Proper Shipping Name (DOT) Proper Shipping Name (TDG) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	<ul> <li>Lithium ion batteries</li> <li>LITHIUM ION BATTERIES</li> <li>LITHIUM ION BATTERIES</li> <li>Lithium ion batteries</li> </ul>
14.3. Transport hazard class(es)	
DOT Transport hazard class(es) (DOT) Hazard labels (DOT)	: 9 : 9
<b>TDG</b> Transport hazard class(es) (TDG) Hazard labels (TDG)	: 9 : 9

## IMDG

Transport hazard class(es) (IMDG)

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Hazard labels (IMDG)	: 9
IATA Transport hazard class(es) (IATA) Hazard labels (IATA)	9A 9A
14.4. Packing group	
Packing group (DOT) Packing group (TDG) Packing group (IMDG) Packing group (IATA)	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>
14.5. Environmental hazards	
Other information	: No supplementary information available.
14.6. Special precautions for user	
DOT UN-No.(DOT) DOT Packaging Exceptions (49 CFR 173.xxx) DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx) DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) DOT Vessel Stowage Location	<ul> <li>UN3480</li> <li>185</li> <li>185</li> <li>185</li> <li>Forbidden</li> <li>35 kg</li> <li>A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.</li> </ul>
<b>TDG</b> UN-No. (TDG) Explosive Limit and Limited Quantity Index Excepted quantities (TDG) Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index Emergency Response Guide (ERG) Number	: UN3480 : 0 : E0 : 5 kg : 147
IMDG Special provision (IMDG) Limited quantities (IMDG) Excepted quantities (IMDG) Packing instructions (IMDG) EmS-No. (Fire) EmS-No. (Spillage) Stowage category (IMDG) Stowage and handling (IMDG)	<ul> <li>188, 230, 310, 348, 376, 377, 384, 387</li> <li>0</li> <li>E0</li> <li>P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906</li> <li>F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE</li> <li>S-I - SPILLAGE SCHEDULE India - FLAMMABLE SOLIDS (REPACKING POSSIBLE)</li> <li>A</li> <li>SW19</li> </ul>

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Properties and observations (IMDG)	: Electrical batteries containing lithium ion encased in a rigid metallic body. Lithium ion batter may also be shipped in, or packed with, equipment. Electrical lithium batteries may cause fi due to an explosive rupture of the body caused by improper construction or reaction with contaminants.	
ΙΑΤΑ		
PCA Excepted quantities (IATA)	: E0	
PCA Limited quantities (IATA)	: Forbidden	
PCA limited quantity max net quantity (IATA)	: Forbidden	
PCA packing instructions (IATA)	: Forbidden	
PCA max net quantity (IATA)	: Forbidden	
CAO packing instructions (IATA)	: See 965	
CAO max net quantity (IATA)	: See 965	
Special provision (IATA)	: A88, A99, A154, A164, A183, A201, A213, A331, A334, A802	
ERG code (IATA)	: 12FZ	

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

### Not applicable

## **SECTION 15: Regulatory information**

## 15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Phosphoric acid, iron(2+) lithium salt (1:1:1)	15365-14-7	Present	Active	PMN;S;5E
Graphite	7782-42-5	Present	Active	
1,1-Difluoroethylene polymer	24937-79-9	Present	Active	XU
Sodium carboxymethyl cellulose	9004-32-4	Present	Active	XU
Styrene-butadiene copolymer	9003-55-8	Present	Active	XU
1,3-Dioxolan-2-one	96-49-1	Present	Active	
Dimethyl carbonate	616-38-6	Present	Active	
Phosphate(1-), hexafluoro-, lithium	21324-40-3	Present	Active	PMN
Copper	7440-50-8	Present	Active	
Aluminum	7429-90-5	Present	Active	

Copper (7440-50-8)		
Subject to reporting requirements of United States SARA Section 313		
CERCLA RQ 5000 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 μm		

## Aluminum (7429-90-5)

Subject to reporting requirements of United States SARA Section 313

## 15.2. International regulations

## CANADA

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 Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

 Listed on the Canadian DSL (Domestic Substances List)

 Graphite (7782-42-5)

 Listed on the Canadian DSL (Domestic Substances List)

 1,1-Difluoroethylene polymer (24937-79-9)

 Listed on the Canadian DSL (Domestic Substances List)

 Sodium carboxymethyl cellulose (9004-32-4)

 Listed on the Canadian DSL (Domestic Substances List)

 Sodium carboxymethyl cellulose (9004-32-4)

 Listed on the Canadian DSL (Domestic Substances List)

 Styrene-butadiene copolymer (9003-55-8)

 Listed on the Canadian DSL (Domestic Substances List)

 1,3-Dioxolan-2-one (96-49-1)

 Listed on the Canadian DSL (Domestic Substances List)

Dimethyl carbonate (616-38-6)

Listed on the Canadian DSL (Domestic Substances List)

Phosphate(1-), hexafluoro-, lithium (21324-40-3)

Listed on the Canadian NDSL (Non-Domestic Substances List)

Copper (7440-50-8)

Listed on the Canadian DSL (Domestic Substances List)

Aluminum (7429-90-5)

Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations** 

Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

Listed on ELINCS (European List of Notified Chemical Substances)

Graphite (7782-42-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

1,3-Dioxolan-2-one (96-49-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Dimethyl carbonate (616-38-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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## Phosphate(1-), hexafluoro-, lithium (21324-40-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

## Copper (7440-50-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

## Aluminum (7429-90-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### **National regulations**

## Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on the TCSI (Taiwan Chemical Substance Inventory) Listed on the NCI (Vietnam - National Chemical Inventory)

## Graphite (7782-42-5)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on TECI (Thailand Existing Chemicals Inventory)

## 1,1-Difluoroethylene polymer (24937-79-9)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on TECI (Thailand Existing Chemicals Inventory)

## Sodium carboxymethyl cellulose (9004-32-4)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on TECI (Thailand Existing Chemicals Inventory)

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## Styrene-butadiene copolymer (9003-55-8)

- Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
- Listed on KECL/KECI (Korean Existing Chemicals Inventory)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on the Japanese ISHL (Industrial Safety and Health Law)
- Listed on INSQ (Mexican National Inventory of Chemical Substances)
- Listed on the TCSI (Taiwan Chemical Substance Inventory)
- Listed on the NCI (Vietnam National Chemical Inventory)
- Listed on TECI (Thailand Existing Chemicals Inventory)

### 1,3-Dioxolan-2-one (96-49-1)

- Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
- Listed on KECL/KECI (Korean Existing Chemicals Inventory)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on the Japanese ISHL (Industrial Safety and Health Law)
- Listed on the TCSI (Taiwan Chemical Substance Inventory)
- Listed on the NCI (Vietnam National Chemical Inventory)

## Dimethyl carbonate (616-38-6)

- Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
- Listed on KECL/KECI (Korean Existing Chemicals Inventory)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on the Japanese ISHL (Industrial Safety and Health Law)
- Listed on INSQ (Mexican National Inventory of Chemical Substances)
- Listed on the TCSI (Taiwan Chemical Substance Inventory)
- Listed on the NCI (Vietnam National Chemical Inventory)
- Listed on TECI (Thailand Existing Chemicals Inventory)

## Phosphate(1-), hexafluoro-, lithium (21324-40-3)

- Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
- Listed on KECL/KECI (Korean Existing Chemicals Inventory)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on the Japanese ISHL (Industrial Safety and Health Law)
- Listed on the TCSI (Taiwan Chemical Substance Inventory)
- Listed on the NCI (Vietnam National Chemical Inventory)
- Listed on TECI (Thailand Existing Chemicals Inventory)

## Safety Data Sheet

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Copper (7440-50-8)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on TECI (Thailand Existing Chemicals Inventory)

## Aluminum (7429-90-5)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on TECI (Thailand Existing Chemicals Inventory)

## 15.3. US State regulations

No additional information available

## **SECTION 16: Other information**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (According to HCS-2012 APPENDIX D TO §1910.1200)

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Revision date		9/22/2023
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Other information	1	No inform

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- se of this product shall imply use in accordance with the instructions on the packaging.
- nation available.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

🛕 TÜVRheinland® Precisely Right.

### General Terms and Conditions of Business of TÜV Rheinland in Greater China

- Scope These General Terms and Conditions of Business of TUV Rhenland in Greater China ("CITCB") is made between the client and one or more member entities of TUV Rhenland in Greater China as applicable as the case may be ("TUV Rhenland"). The Greater China here of the theory of the theory of the theory of the client and the applicable laws who concludes the incorporated or unicorporated etity during contracts under the applicable laws who concludes the incorporated or unicorporated etity during contracts under the applicable laws who concludes the incorporated or unicorporated etity during contracts under the applicable laws. The blowing terms and conditions apply to agreed services including consultancy services, information, deleveries and similar services as well as an acting/services and other secondary Any standard terms and conditions of the client of any nature shall not apply and shall hereby be expressly excluded. No standard contractual terms and conditions of the client shall from part of the contract even if TUV Rheinland dee not explicitly deject to them. In the costed of an ongoing business relationsity with the direkt, this GTCB shall also apply to in the costed of the block terms. 1.1
- (i) (ii) 1.2
- 1.3
- 1.4

#### 2 Quotations

3

#### Unless otherwise agreed, all quotations submitted by TÜV Rheinland can be changed by TÜV Rheinland without notice prior to its acceptance and confirmation by the other party. Coming into effect and duration of contracts

### 3.1

- Coming into effect and duration of contracts The contract stalls core is to effect to the agreed terms upon the quotation ister of TUV Rheinland or a separate contractual document being signed by both contracting parties, or upon the works without recently a quotation from TUV Rheinland (quotation). TUV Rheinland
- 3.2 3.3

#### Scope of services

- Scope of services. The scope and type of the services to be provided by TOV Rhenkand shall be specified in the contractually agreed services scope of TOV Rhenkand by both parties. If no such separate service scope of TOV Rhenkand exists, then the written confirmation of order by TOV Rhenkand shall be decisive for the service to provided. Unless of thermise agreed, services beyond the scope of the standard services and the service decision of order by TOV Rhenkand shall be application of such are not one of the service decision of order by TOV Rhenkand hall be application of such are not one. In particular, or responsibility is assumed for the design, unless this approximation and taked in the service decision, as well as the intended use and application of such) are not one. In particular, or responsibility is assumed for the design, unless this approximation and taked to be extended and the service decision. The method to be and application of such are not one of the service decisions. In the mother to contract a setteme to contract is settemed into. In determine, in its sole describe, the method and nature of the assessment unless otherwise agreed in writing or it mandatory provisions require a specified product to be filled on device and and application in accordance with negations, nor of the instatistion as a such and is to present and more domestications, and application in accordance with regulators, nor of here settemes or examined parts more of the instatistion as a such and the subsettion and consoling the application in accordance with regulators, nor of the systems on which the instation is assettion and application, unless there expections are expressibly covered by the contract. In the case of instations covering on the responder by the contract. In the case of instations covering on the responder by the contract. 41 42
- 4.3
- 4.4
- 4.5 4.6
- 47
- 48
- particular, TUV Rhenhand all assume no responsibility for the construction, selection of materials and assembly of mataliadons avanted, nor by there used an application accordance with responsible to the special provide a special provides of the construction. In the case of impaction work. TUV Rhenhand all has the impactions are based to the special provide a special provide a special provides of the special provide and the case of the special provide a special provide a special provide and provides of the special provide a special provide a special provide a special provide and provides of the special provide a special provide a special provide the special provide by TUV Rhenhand , and the contract the special provide provide provide by TUV Rhenhand, and provide provide provide provide the special provide by TUV Rhenhand, and the contract the provide provid
- 4.9

#### rmance periods/dates

- 5.1
- 52
- 5.3
- 5.4
- Performance period/diales The contractually agreed period/diales of performance are based on estimates of the work involved which are prepared in line with the data provided by the clerit. They shall only be binding if being confirmed as binding VD Rehealed an event diale that the source of the second second second second second second dialest the schematic data required documents to TUV Rehealed an event diare that schematic data required documents to TUV Rehealed and dialest the schematic data required documents to TUV Rehealed and dialest data required as the second second second second second second second agreed period/dialest of performance not caused by TUV Rehealed and the constraints to TUV Rehealed as the responsible for a develop in performance, in particular if the electric that, and addialed has not provided TUV Rehealed and with al documents and information required for the performance of the service as peefed in the contract. If the performance of TUV Reherland is delayed due to underseeable peind of the wink conservations at least to the duration of the hindrance plus any time period which may be required to resume performance. 5.5
- least to the duration of time miniaring participant and the performance performance. If the client is obliged to comply with legal, officially prescribed and/or by the accreditor prescribed deadlines, it is the client's responsibility to agree on performance dates with TUV Rheinland, which deadlines, it is the client's responsibility to agree on performance dates with TUV Rheinland, which are the transition of the client's responsibility of agrees on performance dates with TUV Rheinland. 5.6 being in the net energies incident the legal and/or officially prescribed deadlines. Turburk, where the her client to comply with the legal and/or officially prescribed deadlines. Turburk herinland umes no responsibility in this respect unless TUV Rheinland expressly agreed in writing clically stating that ensuring the deadlines is the contractual obligation of TUV Rheinland. enable the assumes r

### The client's obligation to cooperate

- The client shall guarantee that all cooperation required on its part, its agents or third parties will be provided in good time and at no cost to TÜV Rheinland. 6.1
- 6.2
- provided in good time and at no cost to TUV Rheimand.
  the service shall be services shall be service shalll 6.3

#### Prices

- Prices If the scope of performance is not liad down in writing when the order is placed, involcing shall be based on costs actually incurred. If no price is agreed in writing, involcing shall be made in accordance with the price list of UTW Reinhand valid at the time of performance. Unless otherwise agreed, work shall be involced according to the progress of the work. If the execution of an order adverted over more than one month and the value of the contract or the agreed fixed price seceeds 2,2500.00 or equivalent value in local currency. TUV Rhenland may demine Jaynemis to account or in indiaments. 7.1
- 7.2 7.3

#### Payment terms 8

- 8.1 8.2
- Invoice amounts shall be due for payment within 50 days of the tracked date without deduction receipt of the mixed, no discounts and reclasses shall be granted. Invoices and client numbers. The payments shall be made to the bank account of TUV Pheniand as indicated on the invoice, stating mixeds and client numbers. The payment of the shall be made to be a shall be apprecised and the payment of the shall be payded and the payment of the shall be apprecised and the payment of the payded be apprecised and the shall be apprecised by a payded be payded by the TUV Pheniand is located. At the same time, TUV Pheniand reserves the right to be apprecised and the shall be apprecised by a payded be payded by the TUV Pheniand is located. At the same time, TUV Pheniand reserves the right to be apprecised by the total pheniand is located. At the same time, TUV Pheniand reserves the right to the same transmission of the payded by the total pheniand be pheniand in the total of the same time. TUV Pheniand reserves the right to the pheniand is bound at the same time. TUV Pheniand reserves the right to the pheniand is bound at the same time. TUV Pheniand reserves the right to the pheniand is bound at the same time. TUV Pheniand reserves the right to the pheniand is bound at the same time. TUV Pheniand reserves the right to the pheniand is bound at the pheniand is bound at the same time. TUV Pheniand is the Pheniand is the pheniand is the pheniand is bound at the pheniand at the pheniand is bound at the pheniand at the pheniand at the pheniand at the pheniand at the phen 8.3
- unity where TÜV Rheirland is located. At the same time, TUV running water in Minther damages, could the client default in payment of the invoice despite being granted a reasonable grace could the client default in payment of the invoice despite being granted as reasonable grace and TUV Rheinen shall be eritide to concide the contract, whethere the certificate, client as provisions set forth in article 5.4 shall also apply in cases involving returned cheques, session of payment, commencement of insolvency proceedings has been dismissed due to lack of the the commencement of insolvency proceedings has been dismissed due to lack of clai Shr 8.4
- damage The pro 8.5 13.1
- assets. Objections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of receipt of the invoice. TÜV Rheinland shall be entitled to demand appropriate advance payments. 86

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  - February 2023

- TÜV Rheinland shall be entitled to raise its fees at the beginning of a month if overheads and/or purchase costs have increased. In this case, TÜV Rheinland shall notify the direct in witting of the shall come into feet (period of notice) of charges in fees). If there is no fees remain under SNs contractual year, the client shall not have the right to ferminate the contract. If the rise in fees exceeds SNs per contractual year, the client shall not have the right to ferminate the contract. If the rise in fees exceeds SNs per contractual year, the client shall be entitied to terminate the contract. If the rise in fees exceeds SNs per contract lay the rise that is the shall be dismut to the contract, the charge in fees. 8.8
- Only legally established and undigued chains may be offer against claims by TÜV Rheinland. TÜV Rheinland shall have the right at all times to setoff any amount due or payable by the client, including but not limited to setoff against any fees paid by the client under any contracts, agreement and/or orders/quotations reached with TÜV Rheinland. 8.9 8.10
- Acceptance of work
- Any part of the work result ordered which is complete in itself may be presented by TÜV Rheinland for acceptance as an instalment. The client shall be obliged to accept inmediately. Instein the provide the state of the state 9.1
- 9.2
- 9.3
- 9.4 9.5
- The client is not entitled to make acceptance due to insignificant Oreacn a currence of UV file acceptance is excluded according to the nature of the work performance of TÜV Rheinland, the Countig the Follow-Audit stage, if the client was unable to make use of the time windows provided for within the scope of a certification procedure for auditing/set/mance by TÜV Rheinland and the complication of the scope of a certification procedure for auditing/set/mance by TÜV Rheinland and the complication is thereafter to be windows (e.g. performance of surveillance auditing) of if the client as compensation for expenses. The client reserves the right proves that the TUV Rheinland has incurred no damage whatsever or only a considerably lower damage than the above lung sum. Insofars as the client has undertakein in the contract to acceptives. TUV Rheinland has the reserves the right to prove that the TUV Rheinland has or presension is not called within one year after the orthe has been placed. The client reserves the right to prove that the TUV Rheinland has an uncertain to accent the scope size of the client of considerably lower damage that the above energies of the reserves the right to prove that the TUV Rheinland has and for expenses if the service is not called within one year after the orthe has been placed. The client considerably lower damage than the above mentioned lung sum. 9.6

#### Confidentiality

10.1

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- a) b)
- c)
- 10.4
- 10.5 a)
- b) c) 16.4 10.6
- <text><text><text><text><text><text><text><text><text><text> documentation purposes required by laws, regulations and the requirements of working procedures of TUP Rheinland. From the start of the contract and for a period of three years after termination or expiry of the contract, the receiving party shall maintain strict secrecy of all confidential information and shall not disclose this information to any thrit parties or use if for itself.

### Copyrights and rights of use, publications

- TÜV Rheinland shall retain all exclusive copyrights in the reports, expert reports/opinions, test reports/results, results, calculations, presentations etc. prepared by TÜV Rheinland, unless otherwise agreed by the parties in a separate agreement. As the owner of the copyrights, TÜV Rheinland is fire to grant others the right to use the work results for individual or all types of use 11.1 11.2
- 11.3
- 11.4 11.5
- Childrette digitale di yi the parter in a separate appresent. A construction of the co 18.1 18.2

#### 12. Liability of TÜV Rheinland 12.1

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- Liability of TÜV Rheinland Irrespective of the legal basis to the fullest extent permitted by applicable law, in the event of an basis of constrained beginners of the TUV Basis of TUV Reparator for all damages, bases are shall be limited to: (i) in the case of a contract twin and the permitted basis, a maximum of the entrie contract, (ii) in the case of a contract twin and the permitted basis, a maximum of the entries contract, (iii) in the case of a contract twin and the permitted basis, a maximum of the entries contract, contract supersay change on a time and material basis, a maximum of that provides for the possibility of patient entries the twent of the the entries outcast, and the damages of bases have occurred. Natwithstanding the above, in the event that the busil and accumulate liability acculated according to the transport provides maximum of the entries outcast. The constant of patient provides for the transport provides the transport the total and contract supersay changes of the transport provides accurate. Natwithstanding the above, in the event that the busil and accumulate liability accurate induces and the said 2.5 Million Euro or equivalent amount in local currents. The limitation of liability isocrifies provides to a person bases and the accurate supersa the said and the target of damages for a person develop the provide provides. In cases involving a lundamental breach of contract, TUV Rheinland will be liable even where minor regignerse is involving a lundamental breach of contract, the breach of provides. In cases involving a lundamental breach of contract, the breach is breach of the actual contraction damages for a fundamental breach of contract, the breach of the the anotation of damages assonably foreseends a damages. The transport is breach of the provides is breach of the theory of the transport is accurated and not the table of the accurate, the time of the supersa of the damages of the accurate the time of the transport is breach of the accurate the supersa o

- breach (reasonably foreseeable damage), uries any of the circumsures because at a sum-22 applies. The second seco
- Unless otherwise contractually agreed in writing, TÜV Rheinland shall only be liable under the contract to the clent. The Imitation periods for claims for damages shall be based on statutory provisions. None of the provisions of this article 12 changes the burden of proof to the disadvantage of the clert. 12.6 12.7

#### 13. Export control

When passing on the services provided by TÜV Rheinland or parts thereof to third parties in Greater China or other regions, the client must comply with the respectively applicable regulations of national and international export control laws.

The performance of a contract with the client is subject to the proviso that there are no obstacles to performance due to national or international foreign trade legislations or embargos and/or sanctions. In the event of a violation, TÜV Rheinland shall be entitled to terminate the contract with immediate effect and the client shall compensate for the bases incured thereof by TÜV Rheinland.

#### Data protection notice

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b)

c)

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Data protection notice: The clear understands and agrees that TVV Rheiniand processes personal data (including but not supplied the clear bits the purpose of Additing this contract. The clear confirms that it has observed the prior consent of the data subject, which entitles TVV Rheiniand to access, use, or process the personal data that the clear collected or processes by head and unselfierd to TVV use and process the data in accordance with her relevant legal basis. If any personal data that he clear disclosed or transferred to any thing youry or any oversease by head and use that is to be disclosed or transferred to any thing youry or any oversease by head and table that is the personal data was collected, the clear data occurs that has collaried the prior consent of the personal data subject, the clear data occurs and the scalar data is the disclosed or transferred to TVV clear and process the data in accordance with her relevant legal basis. If any personal data has to be disclosed or transferred to any thing party or any oversease party outside of the data is the the personal data was collected, the clear data occurs data basis to the disclose in China and the local country. TVV Rheinland will take measures to avoid any leakage, abuse, mainplation, ond as a corresponding reason of disclose arises. Busibests may exercise the blockware prights: right of information, right of accession, right of next data protection subjects may exercise the blockware processing of personal data by TVV Rheinland as the person represention of contral processing of personal data by TVV Rheinland as the person represention of the Group processing of personal data by TVV Rheinland as the person represention of the Group processing of personal data by TVV Rheinland as the person represention for the force processing of personal data by TVV Rheinland as the person represention for contract the Group processing of personal data by TVV Rheinland as the person represention for contract the Group processing of pe

#### Retention of test material and documentation

- Retention of test material and documentation The last samples avointist by the certent to TUV Pheniand for testing will be scrapped following testing or will be returned to the client at the client's expense. The only exceptions are test samples, which are placed in storage on the basis of statutory regulations or of another agreement with the client. The statut samples of the samples are stored at the premises of TUV Pheniand. The cost of placing clients sample for storage with be discussed to the client to be placed in storage at their premises, the reference samples or documentations must be made available to TUV Pheniand of making available the reference amples and/or documentations, many lability claims for material and pecunity dynamic results (To Monitoria) and a storage for them is though forward by the client's against TUV Reteniand shall be violate. Client's adjust the reference amples and the status storage to refer the status storage to making certifications or status and the status storage to reference and the client's premises and Client's against TUV Reteniand shall be violate. Client's adjust the status and the status storage to reference and the client's premises and control of the handow and displace of the test samples for storage on the client's premises and the distorations or warehouses of TUV Rheniand only in case of gross negligence.

#### Termination of the contract

- 16.2
- Certaination of the contract of the CRCS, TUV Rheinland and the cleant are stilled to terminate the forthard in the interface of a devices combination of the remaining strengthese of the contract of the devices of a devices combination of the remaining strengthese of the contract of the devices of a devices combination of the remaining strengthese of the contract of the devices of a devices combination of the contract, the device bedde devices of the contract of the devices of the devic

We have been a contracted to be accessed and the contract in the contrel integret in the contract in the contract in the co

Hardship The Parties are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the conclusion of the

more encrusa than could reasonably have been anticipated at the time of the conclusion of the Nobehthatanding paragraph of this Clause, where a Party proves that: (a) the continued performance of its contractual dates has become excessively onerous due to an evert beyond in seasonable contractual which it could not executely have been expected to be an evert beyond in assonable contractual which is could not executely have been expected to be an evert beyond and not executed on the invocation of the Clause, to regoting the event contractual terms which reasonably allow to overcome the consequences of the event. Contractual terms which reasonable mice approach the paragraph. The Party howing this Clause is entitled to terminable the contract, but cannot request adaptation by the judge or arbitrator without the agreement of the Party.

Partial invalidity, written form, place of jurisdiction and dispute resolution All amendments and supplements must be in writing in order to be effective. This also apples to amendments and supplements must be invalidity in order to be the structure of the provision in the gard and even of the provision and the structure of the provision in the gard and commercial terms provision that consists to the context of the invalid provision in tegal and commercial terms of the structure of the provision and the structure of the

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