SAFETY DATA SHEET

Issuing Date 15-Nov-2019 **Revision Date** 12-Nov-2019 **Revision Number** 1

NGHS / English

1. IDENTIFICATION

Product identifier

Product Name Hard Floor Cleaner Waterfall Scent

Other means of identification

Product Code(s) 1532141

Recommended use of the chemical and restrictions on use

Recommended Use Wood Cleaner - Non-aerosol

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Identification Shark Ninja LLC

Address 89 A Street, Suite 100
Newton
MA
02494
US

Telephone Phone:617-456-8243
Fax:617-243-9020

E-mail wbirdsell@sharkninja.com

Emergency telephone number

Company Emergency Phone Number 6174568253

2. HAZARDS IDENTIFICATION

Classification

Not classified.

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance Clear **Physical state** Liquid **Odor** Characteristic

GHS Label elements, including precautionary statements

Hazard statements
Not classified.

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

Unknown acute toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity
0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable.

Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

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

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

Specific hazards arising from the chemical No information available.

Hazardous Combustion Products Carbon oxides.

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes.

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 Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

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

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Odor	Characteristic
Color	No information available
Odor Threshold	No data available

Property	**Values**	**Remarks Method**
pH	8.5	
Melting / freezing point	No data available	None known
Boiling point / boiling range	98 °C / 208 °F	
Flash Point	99 C / 210 F	
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.005	
Water Solubility	Soluble in water	
Solubility(ies)	No data available	None known
Partition coefficient: n-octanol/water	na	
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other Information

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

10. STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to avoid None known based on information supplied.

Incompatible materials None known based on information supplied.

Hazardous Decomposition Products Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute Toxicity

Unknown acute toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity
0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

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

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Very toxic to aquatic life with long lasting effects.
Persistence and Degradability	No information available.
Bioaccumulation	There is no data for this product.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
California Waste Codes	561

14. TRANSPORT INFORMATION

DOT NOT REGULATED
Proper Shipping Name NON-REGULATED
Hazard Class N/A

TDG Not regulated

MEX Not regulated

ICAO Not regulated

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

IMDG/IMO Not regulated
Hazard Class N/A

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

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

International Regulations

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

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

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

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

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

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

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

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances above threshold limits that are regulated by state right-to-know.

16. OTHER INFORMATION

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

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

Issuing Date 15-Nov-2019

Revision Date 12-Nov-2019

Revision Note No information available

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

End of Safety Data Sheet

SONY
Sony Energy Devices Corporation
1-1 Shimosugishita, Takakura, Hiwada-machi, Koriyama-shi, Fukushima, 963-0531 Japan
Phone: +81-50-3807-3065 / Fax: +81-50-3807-3764

SAFETY DATA SHEET

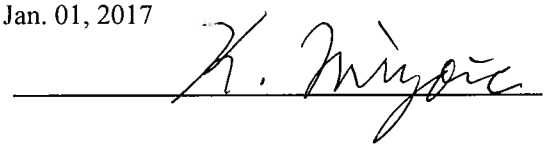
1. Product and Company Identification

Product Information

Product Category	: Lithium Ion Rechargeable Battery
Model Name	: US18650VTC5
Nominal Capacity	: 2600 mAh (9.4 Wh)
Rated Capacity	: 2500 mAh (9.0 Wh)
Average Operating Voltage	: 3.60 V

Company Identification

Supplier's Name	: Sony Energy Devices Corporation
Supplier's Address	: 1-1 Shimosugishita, Takakura, Hiwada-machi, Koriyama-shi, Fukushima, 963-0531 Japan
Information Telephone	: +81-50-3807-3065
Date Prepared	: Jan. 01, 2017
Signature of Paper	:



2. Hazard Identification

Class Name	: Not applicable for regulated class
Hazard	: It may cause heat generation or electrolyte leakage if battery terminals contact with other metals. Electrolyte is flammable. In case of electrolyte leakage, move the battery from fire immediately.
Toxicity	: Vapor generated from burning batteries, may make eyes, skin and throat irritate.

3. Composition / Information on Ingredients

IMPORTANT NOTE:

The battery should not be opened or burned since the following ingredients contained within the battery that could be harmful under some circumstance if exposed or misused.

The cell contains neither metallic lithium nor lithium alloy.

Cathode	: Lithium Nickel Cobalt Oxides	(active material)
	Polyvinylidene Fluoride	(binder)
	Carbon Black	(conductive material)
Anode	: Graphite	(active material)
	Styrene-butadiene rubber / Carboxymethyl cellulose sodium salt (binder)	
Electrolyte	: Organic Solvent	(non-aqueous liquid)
	Lithium Salt	
Others	: Heavy metals such as Mercury, Cadmium, Lead, and Chromium are not used in the battery.	
UN number	: UN3480	
Watt-hour rating	: 9.4 Wh / 9.0 Wh (Nominal / Rated)	

4. First Aid Measures

The product contains organic electrolyte. In case of electrolyte leakage from the battery, actions described below are required.

Eye contact	: Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing, and call a doctor. If appropriate procedures are not taken, this may cause an eye irritation.

Skin contact : Wash the contact areas off immediately with plenty of water and soap.
If appropriate procedures are not taken, this may cause sores on the skin.
Inhalation : Remove to fresh air immediately, and call a doctor.

5. Fire Fighting Measures

- Use specified extinguishers (gas, foam, powder) and extinguishing system under the Fire Defense Law.
- Since corrosive gas may be produced at the time of fire extinguishing, use an air inhalator when danger is predicted.
- Use a large amount of water as a supportive measure in order to get cooling effect if needed. (Indoor/outdoor fire hydrant)
- Carry away flammable materials immediately in case of fire.
- Move batteries to a safer place immediately in case of fire.

6. Accidental Release Measures

- Wipe off with dry cloth
- Keep away from fire
- Wear safety goggles, safety gloves as needed

7. Precautions for Safe Handling and Use

Storage : Store within the recommended limit of -20°C to 45°C (-4°F to 113°F), well-ventilated area. Do not expose to high temperature (60°C/140°F). Since short circuit can cause burn hazard or safety vent to open, do not store with metal jewelry, metal covered tables, or metal belt.
Handling : Do not disassemble, remodel, or solder. Do not short + and - terminals with a metal. Do not open the battery.
Charging : Charge within the limits of 0°C to 45°C (32°F to 113°F) temperature. Charge with specified charger designed for this battery.
Discharging : Discharge within the limits of -20°C to 60°C (-4 °F to 140°F) temperature.
Disposal : Dispose in accordance with applicable federal, state and local regulations.
Caution : Fire, Explosion, and Severe Burn Hazard. Do not Crush, Disassemble, Heat Above 100°C/212°F, or Incinerate.

8. Exposure Controls/Personal protection (In case electrolyte is leaked from battery)

Acceptable concentration : Not specified in ACGIH.
Facilities : Provide appropriate ventilation such as local ventilation system in the storage.
Protective clothing : Gas mask for organic gases, safety goggle, safety glove.

9. Physical and chemical Properties

Appearance : Lithium Ion Rechargeable Cells.
Average Operating Voltage : 3.60 V

10. Stability and Reactivity

External short-circuit, deformation by crush, high temperature (over 100°C) exposure of a battery cause generation of heat and ignition.

11. Toxicological Information

Acute toxicity : No information as a battery
Local effects : No information as a battery

12. Ecological Information

When exhausted battery is buried in the ground, corrosion may be caused on the outer case of battery and electrolyte may be oozed. There is no information on environmental influence.

13. Disposal considerations

When battery is disposed, isolate positive (+) and negative (-) terminals of the battery to avoid those terminals from touching each other. Batteries may be short-circuited when piled up or mixed with the other batteries in disorder. Dispose in accordance with applicable federal, state and local regulations

14. Transport information

- When a number of batteries are transported by ship, vehicle and railroad, avoid high temperature and dew condensation.
- Avoid transportation which may cause damage of package.
- Lithium ion batteries are not subject to dangerous goods regulation for the purpose of transportation by the International Maritime Dangerous Goods regulations(IMDG). For Lithium ion batteries, the Watt-hour rating is no more than 20Wh/cell and 100Wh/battery pack can be treated as "non-dangerous goods" by the United Nations Recommendations on the Transport of Dangerous Goods/Special Provision 188, provided that the products are prevented from being short-circuited with each other and are packaged in an appropriate condition which satisfies Packing Group II performance level.
- IATA (International Air Transport Association): Dangerous Goods Regulation

Packing Instruction 965 (Lithium ion or lithium polymer cells and batteries without electronic equipment)
With effect 1 April 2016: Lithium ion cells and batteries must be offered for transport at a state of charge not exceeding 30 per cent of their rated capacity. UN 3480, PI 965, Section IA and IB and II will be restricted to carriage on cargo aircraft. All packages must bear the Cargo Aircraft Only label in addition to the other marks and labels required by the Regulations.

Section II requirements apply to lithium ion cells with a Watt-hour rating not exceeding 20Wh and lithium ion batteries with a Watt-hour rating not exceeding 100Wh packed in quantities that within the allowance permitted in Section II, Table 965-II.

TABLE 965-II

Contents	Lithium ion cells and/or batteries with a Watt-hour rating of 2.7Wh or less	Lithium ion cells with a Watt-hour rating of more than 2.7Wh but not more than 20Wh	Lithium ion batteries with a Watt-hour rating of more than 2.7Wh but not more than 100Wh
Maximum number of cells/ batteries per package	No limit	8 cells	2 Batteries
Maximum net quantity per package	2.5 kg	N/A	N/A

Lithium ion cells and batteries meeting the requirements in this section are not subject to other additional requirements of these Regulations except for:

- each cell and battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3;
- cells and batteries must be manufactured under a quality management program;
- for batteries, The Watt-hour rating must be marked on the outside of the battery case;
- Each package must be capable of withstanding a 1.2m drop test in any orientation without:
  - -damage to cells or batteries contained therein;
  - -shifting of the contents so as to allow battery to battery (or cell to cell) contact;
  - -release of contents.
- Each package must be labeled with a lithium battery handling label and the cargo aircraft only Label.
- A shipper is not permitted to offer for transport more than one package prepared according to Section II in any single consignment.

Section IB requirements apply to lithium ion cells with a Watt-hour rating not exceeding 20Wh and lithium ion batteries with a Watt-hour rating not exceeding 100Wh packed in quantities that exceed the allowance permitted in Section II, Table 965-II.
Quantities of lithium ion cells or batteries that exceed the allowance permitted in Section II, Table 965-II must be assigned to Class 9 and are subject to all of the applicable provisions of Regulation.

Even classified as lithium batteries packed with equipment (UN3481), IATA Dangerous Goods Regulations packing instruction 966 is applied.
Even classified as lithium batteries installed in equipment (UN3481), IATA Dangerous Goods Regulations packing instruction 967 is applied.

15. Regulatory information

- IMDG Code: International Maritime Dangerous Goods (IMDG) Code 2016 Edition
- ICAO TI: International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air 2017-2018 Edition
- IATA DGR: International Air Transport Association (IATA) Dangerous Goods Regulations 58th Edition

16. Other Information

The information contained within is provided for your information only. The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date of preparation. However, Sony Energy Devices Corporation MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM RELIANCE ON IT.

BATTERY DATA SHEET

DYSON BATTERY PACK 7-CELL (206340)

Revision: 10
Revised date: 15-January -2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
IMPORTANT NOTE: As a solid, manufactured article, exposure to hazardous ingredients is not expected in normal use condition. This battery is an article persuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard requirement. The information contained in this Battery Data Sheet contain useful information critical to the safe handling and proper use of the
battery.

Product Name	Battery Pack 7-Cell (206340)
Part Number	206340-xx Battery Pack Assembly 255260-xx Battery Pack Assembly with rating plate 255272-xx Battery Service Assembly 969352-xx V10 Power Pack & Screws Service Assembly (xx can be 0-9, for the marketing purpose, only different model designations on the marking plate for different markets. No safety concern)
Product Category	Lithium-ion Rechargeable Battery Pack
Battery Pack Rated Voltage	25.2 V
Battery Pack Rated Capacity	2600 mAh
Battery Pack Rated Energy	66 Wh

1.3. Details of the supplier of the safety data sheet

Company	Dyson Limited
Address	Tetbury Hill Malmesbury Wiltshire England SN16 0RP United Kingdom
Web	www.dyson.com
Telephone	+44 (0) 800 298 0298
Fax	-
Email	GlobalCompliance@dyson.com

1.4. Emergency telephone number

Emergency telephone number	+44 (0) 203 394 9857

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Class Name	Under normal condition of use Dyson battery pack presents no risk of exposure. Risk of exposure occurs only if the battery pack is physically abused. Organic electrolyte leakage from abused cells is flammable. Vapour from burning batteries and plastic case may cause eye, skin and respiratory irritation. This material is not classified by the 2012 OSHA Hazard Communication Standard (29 CFR 1910 1200) and no further GHS elements are needed.

2.2. Label elements

CLP Label Elements	Not Applicable

Dyson Battery Pack 7-Cell (206340)

SECTION 3: Composition/information on ingredients

	Battery Pack 7-Cell (206340) uses seven Tohuku Murata US18650VTC5D lithium-ion rechargeable cells controlled with a battery management PCB. The cells are connected in a string of 7 cells in series. The cells does not contain metallic lithium or lithium alloy.

Battery Pack Level

Enclosure	**Plastic (Polycarbonate / Acrylonitrile Butadiene Styrene)**
Cell Cage	**Flame Retarded Polycarbonate / Glass Filled Polycarbonate / Flame Retarded Polypropylene**

Cell Level

Chemical Name	**CAS No.**	**% weight**
Lithium Cobalt Nickel Oxide	113066-89-0	37%
Others (Trade Secret)	-	63%

Dyson Battery Pack 7-Cell (206340)

SECTION 4: First aid measures

4.2. Most important symptoms and effects, both acute and delayed

Battery pack contains organic electrolyte. In case of electrolyte leakage from battery, actions described below are required.

Inhalation	No Symptoms.
Eye contact	There may be irritation and redness.
Skin contact	There may be irritation and redness.
Ingestion	There may be irritation of the throat.

4.3. Indication of any immediate medical attention and special treatment needed

Inhalation	Move the exposed person to fresh air.
Eye contact	Bathe the eye with running water for 15 minutes, if eye irritation persists seek medical attention.
Skin contact	Wash off immediately with plenty of soap and water.
Ingestion	Wash out mouth with water and drink plenty of water.

SECTION 5: Firefighting measures

	In case of fire, use CO_2, dry chemical powder extinguishers. Since irritant and corrosive gas may be produced by battery pack on fire, use self-contained breathing apparatus while extinguishing fire when danger is predicted. Move batteries to a safer place immediately if a fire breaks out nearby. Use a large amount of water as a supportive measure to cool the exterior of batteries if exposed to fire to prevent rupture

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	In the unlikely event that liquid leaks from the battery, Wear personal protective equipment (Safety gloves, goggles and gas mask for organic gases). Avoid skin contact.

6.2. Environmental precautions

	Dispose of damaged battery pack in accordance with federal, state and local regulations. Cover battery pack terminals to prevent accidental short-circuit when batteries are mixed.

6.3. Methods and material for containment and cleaning up

	Use absorbent material (sand, vermiculite, etc.) to absorb any exuded material. Seal leaking battery (unless hot) and contaminated absorbent in a plastic bag and dispose of in accordance with local regulations.

Dyson Battery Pack 7-Cell (206340)

Revision: 10
Revised date: 15-January -2019

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not disassemble, open, remodel, or solder. Do not short + and – terminals with metal.

Charge with a Dyson charger designed for use with this battery pack.

The battery may present a risk of fire or burns if mistreated. Do not disassemble, crush, short contacts, heat above 140°F (100°C), or incinerate. Do not use pack if damaged.

7.2. Conditions for safe storage, including any incompatibilities

Store at < 45°C. Avoid overheating, e.g. through incident solar radiation or radiant heat source. Do not expose to water or condensation.

SECTION 8: Exposure controls/personal protection

8.2. Exposure controls

Personal Protection is not required under normal usage.

In the unlikely event that liquid leaks from the battery do not touch the liquid. Provide appropriate ventilation, do not inhale vapour, use gas masks for organic gases if necessary. Wear safety glasses, safety gloves, and clean up according to Section 6.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	Solid
Colour	N/A
Odour	None
pH-	N/A
Relative density	N/A
Solubility in water (g/L)	Insoluble

SECTION 10: Stability and reactivity

10.2. Chemical stability

Stable under normal conditions.

10.4. Conditions to avoid

High temperature (>100°C) exposure of battery pack.

Deformation by crush will cause generation of heat and ignition.

Avoid mechanical or electrical abuse.

Avoid contact with corrosive chemicals.

SECTION 11: Toxicological information

No information as a battery pack

Dyson Battery Pack 7-Cell (206340)

SECTION 12: Ecological information

	No information as a battery pack

SECTION 13: Disposal considerations

Disposal methods	Dispose of damaged battery pack in accordance with federal, state and local regulations. Cover battery pack terminals to prevent accidental short-circuit when batteries are mixed.

SECTION 14: Transport information

ADR
ICAO-IATA/ DGR
IMDG-Code
ADN

UN Number : 3480 or 3481
UN Proper Shipping Name : 3480 – Lithium Ion Batteries
3481 – Lithium Ion Batteries Contained in Equipment
3481 – Lithium Ion Batteries Packed with Equipment
Class : 9
Subsidiary Risk : -
Hazard Label : Class 9, Miscellanous Dangerous Goods or Miscellanous Lithium Batteries
Handling Label : Lithium Battery Label
Packing Group : Nil

Lithium Ion batteries are considered to be "Rechargeable batteries" and meet the requirements of transportation by the U.S. Department of Transportation(DOT), the International Civil Aviation Administration(ICAO), the International Maritime Dangerous Goods (IMDG) Code.

Land (ADN): 3480 – 188, 230, 310, 348 (Special packaging instruction P903 applies).
3481 – 188, 230, 248, 360 (Special packaging instruction P903 applies).

Sea (IMDG): 188, 230, 310 (Special packaging instruction P903 applies).
EmS: F-A, S-I; Stowage Category A
IMDG Code: 9033

Air (IATA**):** A48, A88, A99, A154, A164, A181, A183, A185, A201, A206, A331, A802 (Packing Instruction 965, 966, 967).
Lithium ion batteries - Lithium ion batteries in compliance with Section of PI 965.
Lithium ion batteries packed with equipment - Lithium ion batteries in compliance with Section of PI 966.
Lithium ion batteries contained in equipment - Lithium ion batteries in compliance with Section of PI 967

The general and additional requirements apply to all lithium ion batteries prepared for air transport according to this packing instruction:

General Requirement:

1) Each cell and battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3.

2) Batteries must be protected so as to prevent short circuits. This includes protection against contact with conductive material within the same packaging that could lead to a short circuit

ADR **ICAO-IATA/ DGR** **IMDG-Code** **ADN**	**Lithium ion batteries - Lithium ion batteries in compliance with Section of PI 965**. 1) Section IB applies to lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities that exceed the allowance permitted in Section II, Table 965-II. Quantities of lithium ion batteries that exceed the allowance permitted in Section II, Table 965-II must be assigned to Class 9 and are subject to all of the applicable provisions of Regulation. 2) Section II applies to lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities not exceeding the allowance permitted in Section II, Table 965-II 3) Each package must capable of withstanding a 1.2m drop test in any orientation without: - damage to batteries contained therein; - shifting of the contents so as to allow battery to battery (or cell to cell) contact; - release of contents 4) Each package must be labelled with a lithium battery handling label UN 3480, PI 965, Section IA and IB. Lithium ion cells and batteries must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity. Cells and/or batteries at a SoC of greater than 30% may only be shipped with the approval of the State of Origin and the State of the Operator under the written conditions established by those authorities. UN 3480, PI 965, Section IA and IB are forbidden for carriage on passenger aircraft. All packages must bear the Cargo Aircraft Only label in addition to the other marks and labels required by the Regulations.

SECTION 15: Regulatory information

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

Regulations	▪ IMDG Code : International Maritime Dangerous Goods (IMDG) Code 2019 Edition ▪ ICAO TI: International Civil Aviation Organation (ICOA) Technical Instructions for the Safe Transport of Dangerous Goods by Air 2018-2019 Edition ▪ IATA DGR: International Air Transport Association (IATA) Dangerous Goods Regulation 60th Edition

Further information

	The regulatory information given above only indicates the principle regulations specifically applicable to the product described in the safety data sheet. Attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

SECTION 16: Other information

Further information

Legal Disclaimer	The information contained within is provided for your information only. The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date of preparation. However, Dyson Ltd makes no warranty, either expressed or implied, with respect to this information and disclaims all liability from reliance on it.

BATTERY DATA SHEET

DYSON BATTERY PACK 7-CELL (206340)

Revision: 10
Revised date: 15-January -2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
IMPORTANT NOTE: As a solid, manufactured article, exposure to hazardous ingredients is not expected in normal use condition. This battery is an article persuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard requirement. The information contained in this Battery Data Sheet contain useful information critical to the safe handling and proper use of the
battery.

Product Name	Battery Pack 7-Cell (206340)
Part Number	206340-xx Battery Pack Assembly 255260-xx Battery Pack Assembly with rating plate 255272-xx Battery Service Assembly 969352-xx V10 Power Pack & Screws Service Assembly (xx can be 0-9, for the marketing purpose, only different model designations on the marking plate for different markets. No safety concern)
Product Category	Lithium-ion Rechargeable Battery Pack
Battery Pack Rated Voltage	25.2 V
Battery Pack Rated Capacity	2600 mAh
Battery Pack Rated Energy	66 Wh

1.3. Details of the supplier of the safety data sheet

Company	Dyson Limited
Address	Tetbury Hill Malmesbury Wiltshire England SN16 0RP United Kingdom
Web	www.dyson.com
Telephone	+44 (0) 800 298 0298
Fax	-
Email	GlobalCompliance@dyson.com

1.4. Emergency telephone number

Emergency telephone number	+44 (0) 203 394 9857

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Class Name	Under normal condition of use Dyson battery pack presents no risk of exposure. Risk of exposure occurs only if the battery pack is physically abused. Organic electrolyte leakage from abused cells is flammable. Vapour from burning batteries and plastic case may cause eye, skin and respiratory irritation. This material is not classified by the 2012 OSHA Hazard Communication Standard (29 CFR 1910 1200) and no further GHS elements are needed.

2.2. Label elements

CLP Label Elements	Not Applicable

Dyson Battery Pack 7-Cell (206340)

SECTION 3: Composition/information on ingredients

	Battery Pack 7-Cell (206340) uses seven Tohuku Murata US18650VTC5D lithium-ion rechargeable cells controlled with a battery management PCB. The cells are connected in a string of 7 cells in series. The cells does not contain metallic lithium or lithium alloy.

Battery Pack Level

Enclosure	**Plastic (Polycarbonate / Acrylonitrile Butadiene Styrene)**
Cell Cage	**Flame Retarded Polycarbonate / Glass Filled Polycarbonate / Flame Retarded Polypropylene**

Cell Level

Chemical Name	**CAS No.**	**% weight**
Lithium Cobalt Nickel Oxide	113066-89-0	37%
Others (Trade Secret)	-	63%

Dyson Battery Pack 7-Cell (206340)

SECTION 4: First aid measures

4.2. Most important symptoms and effects, both acute and delayed

Battery pack contains organic electrolyte. In case of electrolyte leakage from battery, actions described below are required.

Inhalation	No Symptoms.
Eye contact	There may be irritation and redness.
Skin contact	There may be irritation and redness.
Ingestion	There may be irritation of the throat.

4.3. Indication of any immediate medical attention and special treatment needed

Inhalation	Move the exposed person to fresh air.
Eye contact	Bathe the eye with running water for 15 minutes, if eye irritation persists seek medical attention.
Skin contact	Wash off immediately with plenty of soap and water.
Ingestion	Wash out mouth with water and drink plenty of water.

SECTION 5: Firefighting measures

	In case of fire, use CO_2, dry chemical powder extinguishers. Since irritant and corrosive gas may be produced by battery pack on fire, use self-contained breathing apparatus while extinguishing fire when danger is predicted. Move batteries to a safer place immediately if a fire breaks out nearby. Use a large amount of water as a supportive measure to cool the exterior of batteries if exposed to fire to prevent rupture

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	In the unlikely event that liquid leaks from the battery, Wear personal protective equipment (Safety gloves, goggles and gas mask for organic gases). Avoid skin contact.

6.2. Environmental precautions

	Dispose of damaged battery pack in accordance with federal, state and local regulations. Cover battery pack terminals to prevent accidental short-circuit when batteries are mixed.

6.3. Methods and material for containment and cleaning up

	Use absorbent material (sand, vermiculite, etc.) to absorb any exuded material. Seal leaking battery (unless hot) and contaminated absorbent in a plastic bag and dispose of in accordance with local regulations.

Dyson Battery Pack 7-Cell (206340)

Revision: 10
Revised date: 15-January -2019

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not disassemble, open, remodel, or solder. Do not short + and – terminals with metal.

Charge with a Dyson charger designed for use with this battery pack.

The battery may present a risk of fire or burns if mistreated. Do not disassemble, crush, short contacts, heat above 140°F (100°C), or incinerate. Do not use pack if damaged.

7.2. Conditions for safe storage, including any incompatibilities

Store at < 45°C. Avoid overheating, e.g. through incident solar radiation or radiant heat source. Do not expose to water or condensation.

SECTION 8: Exposure controls/personal protection

8.2. Exposure controls

Personal Protection is not required under normal usage.

In the unlikely event that liquid leaks from the battery do not touch the liquid. Provide appropriate ventilation, do not inhale vapour, use gas masks for organic gases if necessary. Wear safety glasses, safety gloves, and clean up according to Section 6.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	Solid
Colour	N/A
Odour	None
pH-	N/A
Relative density	N/A
Solubility in water (g/L)	Insoluble

SECTION 10: Stability and reactivity

10.2. Chemical stability

Stable under normal conditions.

10.4. Conditions to avoid

High temperature (>100°C) exposure of battery pack.

Deformation by crush will cause generation of heat and ignition.

Avoid mechanical or electrical abuse.

Avoid contact with corrosive chemicals.

SECTION 11: Toxicological information

No information as a battery pack

Dyson Battery Pack 7-Cell (206340)

SECTION 12: Ecological information

	No information as a battery pack

SECTION 13: Disposal considerations

Disposal methods	Dispose of damaged battery pack in accordance with federal, state and local regulations. Cover battery pack terminals to prevent accidental short-circuit when batteries are mixed.

SECTION 14: Transport information

ADR
ICAO-IATA/ DGR
IMDG-Code
ADN

UN Number : 3480 or 3481
UN Proper Shipping Name : 3480 – Lithium Ion Batteries
3481 – Lithium Ion Batteries Contained in Equipment
3481 – Lithium Ion Batteries Packed with Equipment
Class : 9
Subsidiary Risk : -
Hazard Label : Class 9, Miscellanous Dangerous Goods or Miscellanous Lithium Batteries
Handling Label : Lithium Battery Label
Packing Group : Nil

Lithium Ion batteries are considered to be "Rechargeable batteries" and meet the requirements of transportation by the U.S. Department of Transportation(DOT), the International Civil Aviation Administration(ICAO), the International Maritime Dangerous Goods (IMDG) Code.

Land (ADN): 3480 – 188, 230, 310, 348 (Special packaging instruction P903 applies).
3481 – 188, 230, 248, 360 (Special packaging instruction P903 applies).

Sea (IMDG): 188, 230, 310 (Special packaging instruction P903 applies).
EmS: F-A, S-I; Stowage Category A
IMDG Code: 9033

Air (IATA**):** A48, A88, A99, A154, A164, A181, A183, A185, A201, A206, A331, A802 (Packing Instruction 965, 966, 967).
Lithium ion batteries - Lithium ion batteries in compliance with Section of PI 965.
Lithium ion batteries packed with equipment - Lithium ion batteries in compliance with Section of PI 966.
Lithium ion batteries contained in equipment - Lithium ion batteries in compliance with Section of PI 967

The general and additional requirements apply to all lithium ion batteries prepared for air transport according to this packing instruction:

General Requirement:

1) Each cell and battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3.

2) Batteries must be protected so as to prevent short circuits. This includes protection against contact with conductive material within the same packaging that could lead to a short circuit

ADR **ICAO-IATA/ DGR** **IMDG-Code** **ADN**	**Lithium ion batteries - Lithium ion batteries in compliance with Section of PI 965**. 1) Section IB applies to lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities that exceed the allowance permitted in Section II, Table 965-II. Quantities of lithium ion batteries that exceed the allowance permitted in Section II, Table 965-II must be assigned to Class 9 and are subject to all of the applicable provisions of Regulation. 2) Section II applies to lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities not exceeding the allowance permitted in Section II, Table 965-II 3) Each package must capable of withstanding a 1.2m drop test in any orientation without: - damage to batteries contained therein; - shifting of the contents so as to allow battery to battery (or cell to cell) contact; - release of contents 4) Each package must be labelled with a lithium battery handling label UN 3480, PI 965, Section IA and IB. Lithium ion cells and batteries must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity. Cells and/or batteries at a SoC of greater than 30% may only be shipped with the approval of the State of Origin and the State of the Operator under the written conditions established by those authorities. UN 3480, PI 965, Section IA and IB are forbidden for carriage on passenger aircraft. All packages must bear the Cargo Aircraft Only label in addition to the other marks and labels required by the Regulations.

SECTION 15: Regulatory information

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

Regulations	▪ IMDG Code : International Maritime Dangerous Goods (IMDG) Code 2019 Edition ▪ ICAO TI: International Civil Aviation Organation (ICOA) Technical Instructions for the Safe Transport of Dangerous Goods by Air 2018-2019 Edition ▪ IATA DGR: International Air Transport Association (IATA) Dangerous Goods Regulation 60th Edition

Further information

	The regulatory information given above only indicates the principle regulations specifically applicable to the product described in the safety data sheet. Attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

SECTION 16: Other information

Further information

Legal Disclaimer	The information contained within is provided for your information only. The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date of preparation. However, Dyson Ltd makes no warranty, either expressed or implied, with respect to this information and disclaims all liability from reliance on it.

BATTERY DATA SHEET

DYSON BATTERY PACK 7-CELL (206340)

Revision: 10
Revised date: 15-January -2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
IMPORTANT NOTE: As a solid, manufactured article, exposure to hazardous ingredients is not expected in normal use condition. This battery is an article persuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard requirement. The information contained in this Battery Data Sheet contain useful information critical to the safe handling and proper use of the
battery.

Product Name	Battery Pack 7-Cell (206340)
Part Number	206340-xx Battery Pack Assembly 255260-xx Battery Pack Assembly with rating plate 255272-xx Battery Service Assembly 969352-xx V10 Power Pack & Screws Service Assembly (xx can be 0-9, for the marketing purpose, only different model designations on the marking plate for different markets. No safety concern)
Product Category	Lithium-ion Rechargeable Battery Pack
Battery Pack Rated Voltage	25.2 V
Battery Pack Rated Capacity	2600 mAh
Battery Pack Rated Energy	66 Wh

1.3. Details of the supplier of the safety data sheet

Company	Dyson Limited
Address	Tetbury Hill Malmesbury Wiltshire England SN16 0RP United Kingdom
Web	www.dyson.com
Telephone	+44 (0) 800 298 0298
Fax	-
Email	GlobalCompliance@dyson.com

1.4. Emergency telephone number

Emergency telephone number	+44 (0) 203 394 9857

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Class Name	Under normal condition of use Dyson battery pack presents no risk of exposure. Risk of exposure occurs only if the battery pack is physically abused. Organic electrolyte leakage from abused cells is flammable. Vapour from burning batteries and plastic case may cause eye, skin and respiratory irritation. This material is not classified by the 2012 OSHA Hazard Communication Standard (29 CFR 1910 1200) and no further GHS elements are needed.

2.2. Label elements

CLP Label Elements	Not Applicable

Dyson Battery Pack 7-Cell (206340)

SECTION 3: Composition/information on ingredients

	Battery Pack 7-Cell (206340) uses seven Tohuku Murata US18650VTC5D lithium-ion rechargeable cells controlled with a battery management PCB. The cells are connected in a string of 7 cells in series. The cells does not contain metallic lithium or lithium alloy.

Battery Pack Level

Enclosure	**Plastic (Polycarbonate / Acrylonitrile Butadiene Styrene)**
Cell Cage	**Flame Retarded Polycarbonate / Glass Filled Polycarbonate / Flame Retarded Polypropylene**

Cell Level

Chemical Name	**CAS No.**	**% weight**
Lithium Cobalt Nickel Oxide	113066-89-0	37%
Others (Trade Secret)	-	63%

Dyson Battery Pack 7-Cell (206340)

SECTION 4: First aid measures

4.2. Most important symptoms and effects, both acute and delayed

Battery pack contains organic electrolyte. In case of electrolyte leakage from battery, actions described below are required.

Inhalation	No Symptoms.
Eye contact	There may be irritation and redness.
Skin contact	There may be irritation and redness.
Ingestion	There may be irritation of the throat.

4.3. Indication of any immediate medical attention and special treatment needed

Inhalation	Move the exposed person to fresh air.
Eye contact	Bathe the eye with running water for 15 minutes, if eye irritation persists seek medical attention.
Skin contact	Wash off immediately with plenty of soap and water.
Ingestion	Wash out mouth with water and drink plenty of water.

SECTION 5: Firefighting measures

	In case of fire, use CO_2, dry chemical powder extinguishers. Since irritant and corrosive gas may be produced by battery pack on fire, use self-contained breathing apparatus while extinguishing fire when danger is predicted. Move batteries to a safer place immediately if a fire breaks out nearby. Use a large amount of water as a supportive measure to cool the exterior of batteries if exposed to fire to prevent rupture

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	In the unlikely event that liquid leaks from the battery, Wear personal protective equipment (Safety gloves, goggles and gas mask for organic gases). Avoid skin contact.

6.2. Environmental precautions

	Dispose of damaged battery pack in accordance with federal, state and local regulations. Cover battery pack terminals to prevent accidental short-circuit when batteries are mixed.

6.3. Methods and material for containment and cleaning up

	Use absorbent material (sand, vermiculite, etc.) to absorb any exuded material. Seal leaking battery (unless hot) and contaminated absorbent in a plastic bag and dispose of in accordance with local regulations.

Dyson Battery Pack 7-Cell (206340)

Revision: 10
Revised date: 15-January -2019

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not disassemble, open, remodel, or solder. Do not short + and – terminals with metal.

Charge with a Dyson charger designed for use with this battery pack.

The battery may present a risk of fire or burns if mistreated. Do not disassemble, crush, short contacts, heat above 140°F (100°C), or incinerate. Do not use pack if damaged.

7.2. Conditions for safe storage, including any incompatibilities

Store at < 45°C. Avoid overheating, e.g. through incident solar radiation or radiant heat source. Do not expose to water or condensation.

SECTION 8: Exposure controls/personal protection

8.2. Exposure controls

Personal Protection is not required under normal usage.

In the unlikely event that liquid leaks from the battery do not touch the liquid. Provide appropriate ventilation, do not inhale vapour, use gas masks for organic gases if necessary. Wear safety glasses, safety gloves, and clean up according to Section 6.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	Solid
Colour	N/A
Odour	None
pH-	N/A
Relative density	N/A
Solubility in water (g/L)	Insoluble

SECTION 10: Stability and reactivity

10.2. Chemical stability

Stable under normal conditions.

10.4. Conditions to avoid

High temperature (>100°C) exposure of battery pack.

Deformation by crush will cause generation of heat and ignition.

Avoid mechanical or electrical abuse.

Avoid contact with corrosive chemicals.

SECTION 11: Toxicological information

No information as a battery pack

Dyson Battery Pack 7-Cell (206340)

SECTION 12: Ecological information

	No information as a battery pack

SECTION 13: Disposal considerations

Disposal methods	Dispose of damaged battery pack in accordance with federal, state and local regulations. Cover battery pack terminals to prevent accidental short-circuit when batteries are mixed.

SECTION 14: Transport information

ADR
ICAO-IATA/ DGR
IMDG-Code
ADN

UN Number : 3480 or 3481
UN Proper Shipping Name : 3480 – Lithium Ion Batteries
3481 – Lithium Ion Batteries Contained in Equipment
3481 – Lithium Ion Batteries Packed with Equipment
Class : 9
Subsidiary Risk : -
Hazard Label : Class 9, Miscellanous Dangerous Goods or Miscellanous Lithium Batteries
Handling Label : Lithium Battery Label
Packing Group : Nil

Lithium Ion batteries are considered to be "Rechargeable batteries" and meet the requirements of transportation by the U.S. Department of Transportation(DOT), the International Civil Aviation Administration(ICAO), the International Maritime Dangerous Goods (IMDG) Code.

Land (ADN): 3480 – 188, 230, 310, 348 (Special packaging instruction P903 applies).
3481 – 188, 230, 248, 360 (Special packaging instruction P903 applies).

Sea (IMDG): 188, 230, 310 (Special packaging instruction P903 applies).
EmS: F-A, S-I; Stowage Category A
IMDG Code: 9033

Air (IATA**):** A48, A88, A99, A154, A164, A181, A183, A185, A201, A206, A331, A802 (Packing Instruction 965, 966, 967).
Lithium ion batteries - Lithium ion batteries in compliance with Section of PI 965.
Lithium ion batteries packed with equipment - Lithium ion batteries in compliance with Section of PI 966.
Lithium ion batteries contained in equipment - Lithium ion batteries in compliance with Section of PI 967

The general and additional requirements apply to all lithium ion batteries prepared for air transport according to this packing instruction:

General Requirement:

1) Each cell and battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3.

2) Batteries must be protected so as to prevent short circuits. This includes protection against contact with conductive material within the same packaging that could lead to a short circuit

ADR **ICAO-IATA/ DGR** **IMDG-Code** **ADN**	**Lithium ion batteries - Lithium ion batteries in compliance with Section of PI 965**. 1) Section IB applies to lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities that exceed the allowance permitted in Section II, Table 965-II. Quantities of lithium ion batteries that exceed the allowance permitted in Section II, Table 965-II must be assigned to Class 9 and are subject to all of the applicable provisions of Regulation. 2) Section II applies to lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities not exceeding the allowance permitted in Section II, Table 965-II 3) Each package must capable of withstanding a 1.2m drop test in any orientation without: - damage to batteries contained therein; - shifting of the contents so as to allow battery to battery (or cell to cell) contact; - release of contents 4) Each package must be labelled with a lithium battery handling label UN 3480, PI 965, Section IA and IB. Lithium ion cells and batteries must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity. Cells and/or batteries at a SoC of greater than 30% may only be shipped with the approval of the State of Origin and the State of the Operator under the written conditions established by those authorities. UN 3480, PI 965, Section IA and IB are forbidden for carriage on passenger aircraft. All packages must bear the Cargo Aircraft Only label in addition to the other marks and labels required by the Regulations.

SECTION 15: Regulatory information

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

Regulations	▪ IMDG Code : International Maritime Dangerous Goods (IMDG) Code 2019 Edition ▪ ICAO TI: International Civil Aviation Organation (ICOA) Technical Instructions for the Safe Transport of Dangerous Goods by Air 2018-2019 Edition ▪ IATA DGR: International Air Transport Association (IATA) Dangerous Goods Regulation 60th Edition

Further information

	The regulatory information given above only indicates the principle regulations specifically applicable to the product described in the safety data sheet. Attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

SECTION 16: Other information

Further information

Legal Disclaimer	The information contained within is provided for your information only. The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date of preparation. However, Dyson Ltd makes no warranty, either expressed or implied, with respect to this information and disclaims all liability from reliance on it.

BATTERY DATA SHEET

DYSON BATTERY PACK 7-CELL (206340)

Revision: 10
Revised date: 15-January -2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
IMPORTANT NOTE: As a solid, manufactured article, exposure to hazardous ingredients is not expected in normal use condition. This battery is an article persuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard requirement. The information contained in this Battery Data Sheet contain useful information critical to the safe handling and proper use of the
battery.

Product Name	Battery Pack 7-Cell (206340)
Part Number	206340-xx Battery Pack Assembly 255260-xx Battery Pack Assembly with rating plate 255272-xx Battery Service Assembly 969352-xx V10 Power Pack & Screws Service Assembly (xx can be 0-9, for the marketing purpose, only different model designations on the marking plate for different markets. No safety concern)
Product Category	Lithium-ion Rechargeable Battery Pack
Battery Pack Rated Voltage	25.2 V
Battery Pack Rated Capacity	2600 mAh
Battery Pack Rated Energy	66 Wh

1.3. Details of the supplier of the safety data sheet

Company	Dyson Limited
Address	Tetbury Hill Malmesbury Wiltshire England SN16 0RP United Kingdom
Web	www.dyson.com
Telephone	+44 (0) 800 298 0298
Fax	-
Email	GlobalCompliance@dyson.com

1.4. Emergency telephone number

Emergency telephone number	+44 (0) 203 394 9857

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Class Name	Under normal condition of use Dyson battery pack presents no risk of exposure. Risk of exposure occurs only if the battery pack is physically abused. Organic electrolyte leakage from abused cells is flammable. Vapour from burning batteries and plastic case may cause eye, skin and respiratory irritation. This material is not classified by the 2012 OSHA Hazard Communication Standard (29 CFR 1910 1200) and no further GHS elements are needed.

2.2. Label elements

CLP Label Elements	Not Applicable

Dyson Battery Pack 7-Cell (206340)

SECTION 3: Composition/information on ingredients

	Battery Pack 7-Cell (206340) uses seven Tohuku Murata US18650VTC5D lithium-ion rechargeable cells controlled with a battery management PCB. The cells are connected in a string of 7 cells in series. The cells does not contain metallic lithium or lithium alloy.

Battery Pack Level

Enclosure	**Plastic (Polycarbonate / Acrylonitrile Butadiene Styrene)**
Cell Cage	**Flame Retarded Polycarbonate / Glass Filled Polycarbonate / Flame Retarded Polypropylene**

Cell Level

Chemical Name	**CAS No.**	**% weight**
Lithium Cobalt Nickel Oxide	113066-89-0	37%
Others (Trade Secret)	-	63%

Dyson Battery Pack 7-Cell (206340)

SECTION 4: First aid measures

4.2. Most important symptoms and effects, both acute and delayed

Battery pack contains organic electrolyte. In case of electrolyte leakage from battery, actions described below are required.

Inhalation	No Symptoms.
Eye contact	There may be irritation and redness.
Skin contact	There may be irritation and redness.
Ingestion	There may be irritation of the throat.

4.3. Indication of any immediate medical attention and special treatment needed

Inhalation	Move the exposed person to fresh air.
Eye contact	Bathe the eye with running water for 15 minutes, if eye irritation persists seek medical attention.
Skin contact	Wash off immediately with plenty of soap and water.
Ingestion	Wash out mouth with water and drink plenty of water.

SECTION 5: Firefighting measures

	In case of fire, use CO_2, dry chemical powder extinguishers. Since irritant and corrosive gas may be produced by battery pack on fire, use self-contained breathing apparatus while extinguishing fire when danger is predicted. Move batteries to a safer place immediately if a fire breaks out nearby. Use a large amount of water as a supportive measure to cool the exterior of batteries if exposed to fire to prevent rupture

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	In the unlikely event that liquid leaks from the battery, Wear personal protective equipment (Safety gloves, goggles and gas mask for organic gases). Avoid skin contact.

6.2. Environmental precautions

	Dispose of damaged battery pack in accordance with federal, state and local regulations. Cover battery pack terminals to prevent accidental short-circuit when batteries are mixed.

6.3. Methods and material for containment and cleaning up

	Use absorbent material (sand, vermiculite, etc.) to absorb any exuded material. Seal leaking battery (unless hot) and contaminated absorbent in a plastic bag and dispose of in accordance with local regulations.

Dyson Battery Pack 7-Cell (206340)

Revision: 10
Revised date: 15-January -2019

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not disassemble, open, remodel, or solder. Do not short + and – terminals with metal.

Charge with a Dyson charger designed for use with this battery pack.

The battery may present a risk of fire or burns if mistreated. Do not disassemble, crush, short contacts, heat above 140°F (100°C), or incinerate. Do not use pack if damaged.

7.2. Conditions for safe storage, including any incompatibilities

Store at < 45°C. Avoid overheating, e.g. through incident solar radiation or radiant heat source. Do not expose to water or condensation.

SECTION 8: Exposure controls/personal protection

8.2. Exposure controls

Personal Protection is not required under normal usage.

In the unlikely event that liquid leaks from the battery do not touch the liquid. Provide appropriate ventilation, do not inhale vapour, use gas masks for organic gases if necessary. Wear safety glasses, safety gloves, and clean up according to Section 6.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	Solid
Colour	N/A
Odour	None
pH-	N/A
Relative density	N/A
Solubility in water (g/L)	Insoluble

SECTION 10: Stability and reactivity

10.2. Chemical stability

Stable under normal conditions.

10.4. Conditions to avoid

High temperature (>100°C) exposure of battery pack.

Deformation by crush will cause generation of heat and ignition.

Avoid mechanical or electrical abuse.

Avoid contact with corrosive chemicals.

SECTION 11: Toxicological information

No information as a battery pack

Dyson Battery Pack 7-Cell (206340)

SECTION 12: Ecological information

	No information as a battery pack

SECTION 13: Disposal considerations

Disposal methods	Dispose of damaged battery pack in accordance with federal, state and local regulations. Cover battery pack terminals to prevent accidental short-circuit when batteries are mixed.

SECTION 14: Transport information

ADR
ICAO-IATA/ DGR
IMDG-Code
ADN

UN Number : 3480 or 3481
UN Proper Shipping Name : 3480 – Lithium Ion Batteries
3481 – Lithium Ion Batteries Contained in Equipment
3481 – Lithium Ion Batteries Packed with Equipment
Class : 9
Subsidiary Risk : -
Hazard Label : Class 9, Miscellanous Dangerous Goods or Miscellanous Lithium Batteries
Handling Label : Lithium Battery Label
Packing Group : Nil

Lithium Ion batteries are considered to be "Rechargeable batteries" and meet the requirements of transportation by the U.S. Department of Transportation(DOT), the International Civil Aviation Administration(ICAO), the International Maritime Dangerous Goods (IMDG) Code.

Land (ADN): 3480 – 188, 230, 310, 348 (Special packaging instruction P903 applies).
3481 – 188, 230, 248, 360 (Special packaging instruction P903 applies).

Sea (IMDG): 188, 230, 310 (Special packaging instruction P903 applies).
EmS: F-A, S-I; Stowage Category A
IMDG Code: 9033

Air (IATA**):** A48, A88, A99, A154, A164, A181, A183, A185, A201, A206, A331, A802 (Packing Instruction 965, 966, 967).
Lithium ion batteries - Lithium ion batteries in compliance with Section of PI 965.
Lithium ion batteries packed with equipment - Lithium ion batteries in compliance with Section of PI 966.
Lithium ion batteries contained in equipment - Lithium ion batteries in compliance with Section of PI 967

The general and additional requirements apply to all lithium ion batteries prepared for air transport according to this packing instruction:

General Requirement:

1) Each cell and battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3.

2) Batteries must be protected so as to prevent short circuits. This includes protection against contact with conductive material within the same packaging that could lead to a short circuit

ADR **ICAO-IATA/ DGR** **IMDG-Code** **ADN**	**Lithium ion batteries - Lithium ion batteries in compliance with Section of PI 965**. 1) Section IB applies to lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities that exceed the allowance permitted in Section II, Table 965-II. Quantities of lithium ion batteries that exceed the allowance permitted in Section II, Table 965-II must be assigned to Class 9 and are subject to all of the applicable provisions of Regulation. 2) Section II applies to lithium ion batteries with a Watt-hour rating not exceeding 100 Wh packed in quantities not exceeding the allowance permitted in Section II, Table 965-II 3) Each package must capable of withstanding a 1.2m drop test in any orientation without: - damage to batteries contained therein; - shifting of the contents so as to allow battery to battery (or cell to cell) contact; - release of contents 4) Each package must be labelled with a lithium battery handling label UN 3480, PI 965, Section IA and IB. Lithium ion cells and batteries must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity. Cells and/or batteries at a SoC of greater than 30% may only be shipped with the approval of the State of Origin and the State of the Operator under the written conditions established by those authorities. UN 3480, PI 965, Section IA and IB are forbidden for carriage on passenger aircraft. All packages must bear the Cargo Aircraft Only label in addition to the other marks and labels required by the Regulations.

SECTION 15: Regulatory information

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

Regulations	▪ IMDG Code : International Maritime Dangerous Goods (IMDG) Code 2019 Edition ▪ ICAO TI: International Civil Aviation Organation (ICOA) Technical Instructions for the Safe Transport of Dangerous Goods by Air 2018-2019 Edition ▪ IATA DGR: International Air Transport Association (IATA) Dangerous Goods Regulation 60th Edition

Further information

	The regulatory information given above only indicates the principle regulations specifically applicable to the product described in the safety data sheet. Attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

SECTION 16: Other information

Further information

Legal Disclaimer	The information contained within is provided for your information only. The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date of preparation. However, Dyson Ltd makes no warranty, either expressed or implied, with respect to this information and disclaims all liability from reliance on it.