Version	Date	Description
04	**25-Mar-11**	**New address for Tesla, included more information about battery electrolyte. Disclaimer changed on last page. Edited Sections 3 & 5. Added Section 6. Updated document part number to TS-0000072, based on 98-000543-00.**
05	**23-Sep-11**	**Correct Battery Pack part numbers under Identification section. Added updated UN number 3171 on the last page.**
06	**25-May-12**	**Updated hazard identification, fire fighting methods, emissions data from burning packs, changed disposal language**
07	**25-Sept-15**	**Updated to include Roadster 3.0 battery pack, updated packing group, clarified electrolyte leakage hazards, addressed gas emissions, updated addresses, phone numbers, images, and formatting**
08	**29-June-17**	**Updated product information and part numbers, added reman numbers, and updated outdated Tesla contact information.**

Rechargeable Lithium Ion Batteries

The products referenced herein are exempt articles and are not subject to OSHA's Hazard Communication Standard requirements for preparation of Safety Data Sheets (SDS).

SDS

Safety Data Sheets (SDS) are a sub-requirement of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR Subpart 1910.1200. This Hazard Communication Standard does not apply to various subcategories including anything defined by OSHA as an "article." OSHA has defined "article" as a manufactured item other than a fluid or particle; (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities (e.g. minute or trace amounts) of a hazardous chemical, and does not pose a physical hazard or health risk to employees.

Tesla battery products meet the OSHA definition of "articles." Thus, they are exempt from the requirements of the Hazardous Communication Standard therefore, a SDS is not required.

1. IDENTIFICATION OF PRODUCTS AND COMPANY

Product	Rechargeable lithium-ion Roadster battery packs and modules. Specific part numbers are listed below.			
Locations	**Headquarters (USA)**	**Europe and Africa**	**Australia and Asia**	**Manufacturer (USA)**
	3500 Deer Creek Road Palo Alto, CA 94304 Tel. No. +001 650-681-5000	Burgemeester Stramanweg 122 1101EN Amsterdam The Netherlands Tel. No. +31 20 258 3916	Eastern Aoyama Building 4F 8-5-41 Akasaka, Minato-ku Tokyo, Japan 107-0052 Tel: +81 3 6890 7700	3500 Deer Creek Road Palo Alto, CA 94304 Tel. No. +001 650-681-5000
Emergency Contacts	CHEMTREC	For Hazardous Materials [or Dangerous Goods] Incidents: Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1 800-424-9300 Contract Number: CCN204273 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)		

The Tesla Roadster lithium-ion battery pack contains sealed battery cells that are similar to rechargeable batteries in many consumer electronic products. Cells are individually, hermetically sealed cylinders approximately 18 mm in diameter and 65 mm in length. These cylinders each contain lithium-ion electrodes and electrolyte (approximate composition listed below). THE CELLS AND BATTERIES DO NOT CONTAIN METALLIC LITHIUM. Individual cells have nominal voltages of approximately 3.6 V.

Under normal usage, lithium-ion cells do not evolve gases. Lithium-ion cells will only emit gases if severely abused: for example if severely crushed, heated to more than 150°C for an extended time, or severely overcharged. Tesla batteries include multiple layers of protection to prevent abnormal charging. These protections include electronics to detect and prohibit overcharging, mechanical fuses to isolate cells, and a mechanical charge interrupt device within each cell that permanently disables a cell upon overcharge.

Materials/Ingredients of Battery Cells	**Approx. % by wt.**
Lithium Cobalt Oxide, $LiCoO_2$	33
Carbon	18
Iron	21
Copper	10
Aluminum	8
Nickel	<1
Organic electrolyte (mainly composed of alkyl carbonate)*	<8
Plastic film (Polypropylene and/ or Polyethylene)	3
Other	<1

*An acceptable exposure concentration of electrolyte has not been identified by the American Council of Governmental Industrial Hygienists (ACGIH). In case of electrolyte leakage from the battery, the oral (rat) LD50 is greater than 2 g/kg (estimated).

Individual cells are connected to form modules. Modules are connected to form battery packs. Approximate specifications of modules and packs are listed below. The electrical energy stored in one pack is approximately equivalent to the chemical energy in two gallons of gasoline.

Legacy Part Number(s)	Current Part Number	Reman Number(s)	Description	Nominal Voltage (V)	Max Voltage (V)	Weight (kg)	Height (cm)	Width (cm)	Depth (cm)
Roadster 1.5 and 2.0 Battery Pack									
06-001500-00	6001116	6003973	ASY, ESS	366	420	545 (1200 lb)	70 (28 In)	110 (43 in)	82 (32 In)
06-002210-00	6003532	6004995	ASY, ESS 2.0	366	420	545 (1200 lb)	70 (28 In)	110 (43 in)	82 (32 In)

Legacy Part Number(s)	Current Part Number	Reman Number(s)	Description	Nominal Voltage (V)	Max Voltage (V)	Weight (kg)	Height (cm)	Width (cm)	Depth (cm)
Roadster 1.5 and 2.0 Modules									
06-002196-00	6003166	6003972	ASY, UNFUSED SHEET, ESS	33	38	45 (100 lb)	70 (28 in)	65 (26 in)	8 (3 in)
06-000930-00	6001107	6003974	ASY, SHEET, ESS	33	38	45 (100 lb)	70 (28 in)	65 (26 in)	8 (3 in)
06-002322-00	6003534	6005377	ASY, SHEET WITH BUSBAR, ESS 2.0	33	38	45 (100 lb)	70 (28 in)	65 (26 in)	8 (3 in)
06-002321-00	6003537	6005380	ASY, SHEET WITH FUSE, ESS 2.0	33	38	45 (100 lb)	70 (28 in)	65 (26 in)	8 (3 in)
N/A	1005144-x*y*-z*	1014138-x*y*-z*	ASY, SHEET WITH FUSE, ESS 2.0	33	38	45 (100 lb)	70 (28 in)	65 (26 in)	8 (3 in)
N/A	1005145-x*y*-z*	1014139-x*y*-z*	ASY, SHEET WITH BUSBAR, ESS 2.0	33	38	45 (100 lb)	70 (28 in)	65 (26 in)	8 (3 in)

* Note that the 8th or 9th digit could be any number or letter and the 10th digit could be any letter.

Legacy Part Number(s)	Current Part Number	Reman Number(s)	Description	Nominal Voltage (V)	Max Voltage (V)	Weight (kg)	Height (cm)	Width (cm)	Depth (cm)
Roadster 3.0 Battery Pack									
N/A	1055804-x*y*-z*	1129031-x*y*-z*	ASY, HV BATTERY, 3.0, RDSTR 2.X	366	431	545 (1200 lb)	70 (28 In)	110 (43 in)	82 (32 In)
N/A	1076092-x*y*-z*	1129034-x*y*-z*	ASY, HV BATTERY, 3.0, RDSTR 1.X	366	431	545 (1200 lb)	70 (28 In)	110 (43 in)	82 (32 In)

* Note that the 8th or 9th digit could be any number or letter and the 10th digit could be any letter.

Legacy Part Number(s)	Current Part Number	Reman Number(s)	Description	Nominal Voltage (V)	Max Voltage (V)	Weight (kg)	Height (cm)	Width (cm)	Depth (cm)
Roadster 3.0 Modules									
N/A	1055806-x*y*-z*	1130936-x*y*-z*	ASY, SHEET WITH FUSE, 3.0, RDSTR	33	39	45 (100 lb)	70 (28 in)	65 (26 in)	8 (3 in)
N/A	1055807-x*y*-z*	1130939-x*y*-z*	ASY, SHEET WITH BUSBAR, 3.0, RDSTR	33	39	45 (100 lb)	70 (28 in)	65 (26 in)	8 (3 in)
N/A	1055808-x*y*-z*	N/A	ASY, SHEET NEUTRAL, 3.0, RDSTR	33	39	45 (100 lb)	70 (28 in)	65 (26 in)	8 (3 in)

* Note that the 8th or 9th digit could be any number or letter and the 10th digit could be any letter.

2. HANDLING AND USE PRECAUTIONS/IDENTIFICATION OF HAZARDS

The products described by this document are dangerous if mishandled. Injury to property or person, including loss of life is possible if mishandled.

A battery is a source of energy. Do not short circuit, puncture, incinerate, crush, immerse, force discharge or expose to temperatures above the declared operating temperature range of the product. An internal- or external-short circuit can cause significant overheating and provide an ignition source resulting in fire, including surrounding materials or materials within the cell or battery. Under normal conditions of use, the electrode materials and liquid electrolyte they contain are not exposed, provided the battery integrity is maintained and seals remain intact. Risk of exposure only will occur in cases of abuse (mechanical, thermal, and/or electrical).

2A. HIGH VOLTAGE HAZARDS

Under normal conditions of use, provided that the battery enclosure remains closed, handling the pack does not pose an electrical hazard. Numerous safeguards have been designed into the pack to help ensure that the high-voltage-battery pack is kept safe and secure in an accident or as a result of a number of expected abuse conditions. The pack is sealed in a rigid metal case and its exterior is isolated from high voltage. All of the constituent component battery cells are sealed within the pack as sub-groups in plastic cases.

A battery pack or module may pose a significant high voltage and electrocution risk if the outer enclosure and safety circuits have been compromised or have been significantly damaged. **A battery pack, even in a normally discharged condition is likely to contain substantial electrical charge and can cause injury or death if mishandled.**

If a Tesla battery pack or module has been visibly damaged or its enclosure compromised then practice appropriate high-voltage preventative measures until the danger has been assessed (and dissipated if necessary).

WARNING: NEVER CUT INTO A SEALED PACK OR MODULE ENCLOSURE due to the high voltage and electrocution risks.

For proper vehicle connection/ removal instructions refer to specific vehicle Emergency Response Guides or Service Manuals

2B. HAZARDS ASSOCIATED WITH MECHANICAL DAMAGE

Mechanical damage to battery packs and/ or modules can result in a number of hazardous conditions (discussed below) including:

- Leaked battery pack coolant (see Section 2D)
- Leaked cell electrolyte (see Section 2E)
- Rapid heating of individual cells due to exothermic reaction of constituent materials (cell thermal runaway), venting of cells, and propagation of self-heating and thermal runaway reactions to neighboring cells.
- Fire

To prevent mechanical damage to battery packs or modules, these items should be stored in their shipping containers when not in use (see Section 6 below).

2C. HAZARDS ASSOCIATED WITH ELEVATED TEMPERATURE EXPOSURE

Battery packs and modules are designed to withstand operating temperatures up to 55 °C (131°F) and high humidity. However, exposure to elevated temperatures can drive battery cells into thermal runaway and result in a fire.

- Storage for more than 24 hours at temperatures above approximately 80°C (176°F) could result in cell thermal runaway reactions and should be avoided.
- Storage for more than a few minutes at temperatures above approximately 150°C (302°F) could result in cell thermal runaway reactions and should be avoided.
- Exposure of battery packs or modules to localized heat sources such as flames could result in cell thermal runaway reactions and should be avoided.

2D. HAZARDS ASSOCIATES WITH LEAKED COOLANT

When installed in vehicles, battery pack thermal management is achieved via liquid cooling. A typical coolant system includes about 7L of ethylene glycol and water. Mechanical damage of an installed battery pack, or to a stored battery pack that has not been drained, could result in leakage of the coolant. The fluid is blue in color and does not emit a strong odor.

For information regarding the toxicological hazards associated with ethylene glycol, as well as ecological effects and disposal considerations, refer to the specific Safety Data Sheet (SDS) for battery coolant.

Extended exposure of the battery pack to leaked coolant could cause additional damage to the battery pack such as corrosion and compromise of pack protection electronics.

2E. HAZARDS ASSOCIATED WITH LEAKED ELECTROLYTE

The electrolyte within constituent cells includes a volatile hydrocarbon-based liquid and a dissolved lithium salt (which is a source of lithium ions) such as lithium hexafluorophosphate. The electrolyte is largely absorbed in electrodes within individual sealed cells. Under normal usage conditions battery electrolyte should not be encountered by anyone handling a Tesla battery pack.

The possibility of a spill of electrolyte from a Tesla battery pack is very remote. A small quantity of electrolyte (up to approximately 1 g) can be extracted from a single cell using a centrifuge, or under some extreme abuse conditions such as a severe crush. It is extremely difficult to cause a leak from more than a few cells due to any incident. For the electrolyte liquid to escape a battery pack, the pack enclosure itself would need to be punctured, and cells within the enclosure would have to be severely mechanically damaged. Even under these conditions, we would not expect more than a few grams of electrolyte to leak from damaged cells. The battery pack enclosure has the capacity to contain liquid from a large number of individual cells.

Any released electrolyte liquid is likely to evaporate rapidly, leaving a white salt residue. Evaporated electrolyte is flammable and will contain alkyl-carbonate compounds. Leaked electrolyte is colorless and characterized by a sweet odor. If an odor is obvious, evacuate or clear the surrounding area and ventilate the area. WARNING: AVOID CONTACT WITH ELECTROLYTE.

Leaked electrolyte solution is flammable and is corrosive / irritating to the eyes and skin. If a liquid is observed that is suspected electrolyte, ventilate the area and avoid contact with the liquid until a positive identification can be made and sufficient protective equipment can be obtained (eye, skin, and respiratory protection). Chemical classifier strips can be used to identify the spilled liquid (electrolyte will contain petroleum/organic solvent and fluoride compounds.

In case of an electrolyte leak, the following protective equipment is recommended: an air purifying respirator with organic vapor/acid gas cartridges, safety goggles or a full face respirator, and safety gloves (Butyl rubber or laminated film (Silver Shield)). Protective clothing should be worn. Use a dry absorbent material to clean up the spill.

2F. HAZARDS ASSOCIATED WITH VENTED ELECTROLYTE

Lithium-ion cells are sealed units, and thus under normal usage conditions, venting of electrolyte should not occur. If subjected to abnormal heating or other abuse conditions, electrolyte and electrolyte decomposition products can vaporize and be vented from cells. Accumulation of liquid electrolyte is unlikely in the case of abnormal heating. Vented gases are a common early indicator of a thermal runaway reaction – an abnormal and hazardous condition.

If gases or smoke are observed escaping from the battery pack, evacuate the area and notify a first responder team and/or the local fire department. Gases or smoke exiting a lithium-ion battery pack are likely flammable and could ignite unexpectedly as the condition that led to cell venting may also cause ignition of the vent gases. A venting battery pack should only be approached with extreme caution by trained first responders equipped with appropriate personal protective equipment (PPE) (discussed in Section 3).

Cell vent gas composition will depend upon a number of factors, including cell composition, cell state of charge, and the cause of cell venting. Vent gases may include volatile organic compounds (VOCs) (such as alkyl-carbonates, methane, ethylene, and ethane), hydrogen gas, carbon dioxide, carbon monoxide, soot, and particulates containing oxides of nickel, aluminum, lithium, copper, and cobalt. Additionally, phosphorus pentafluoride, POF_3 and HF vapors may form.

WARNING: AVOID CONTACT WITH VENTED GASES. Vented gases may irritate the eyes, skin, and throat. Cell vent gases are typically hot: upon exit from a cell, vent gas temperatures can exceed 600 ºC (1,110 ºF). Contact with hot gases can cause thermal burns. Vented electrolyte is flammable, and may ignite on contact with a competent ignition source such as an open flame, spark, or a sufficiently heated surface. Vented electrolyte may also ignite on contact with cells undergoing a thermal runaway reaction.

3. FIREFIGHTING MEASURES

Responding to a Venting Battery Pack. Smoke emanating from a Tesla battery is an indication of an abnormal and hazardous condition. The smoke is likely flammable and may ignite at any time. If fire or smoke is observed emanating from a Tesla battery pack at any time, evacuate the area, and notify appropriately trained first responders and the local fire department.

A trained first responder team or the local fire department should shut off power to any charger system attached to the battery (if the battery pack is charging). The battery pack should then be monitored for evidence of continued smoke evolution. Application of high volumes of water from a safe distance to cool the battery pack may prevent further reaction and prevent a fire from developing.

If a fire develops, the Incident Commander should determine whether an attempt will be made to suppress the battery fire (aggressive fire fighting) or allow the battery to burn until it self-extinguishes, while protecting surrounding materials (defensive fire fighting).

Virtually all fires involving lithium-ion batteries can be controlled with water. To date, water has been found to be the most effective agent for controlling lithium-ion battery fires. Water will suppress flames and can cool cells, limiting propagation of thermal runaway reactions. If water is used, electrolysis of water (splitting of water into hydrogen and oxygen) may contribute to the flammable gas mixture formed by venting cells, burning plastic, and burning of other combustibles. Thus copious volumes of water should be used to fight a lithium-ion battery fire.

Gaseous agents such as CO_2 or Halon, or dry chemical suppressants may temporarily suppress flaming of lithium-ion battery packs, but they will not cool lithium-ion batteries and will not limit the propagation of cell thermal runaway reactions. Metal fire suppressants such as LITH-X, graphite powder, or copper powder are not appropriate agents for suppressing fires involving lithium-ion battery packs as they are unlikely to be effective.

A battery fire may continue for several hours and it may take 24 hours or longer for the battery pack to cool. A lithium-ion battery fire that has been extinguished can re-ignite due to the exothermic reaction of constituent materials from broken or damaged cells. To avoid this, remove sources of ignition and cool the burned mass by flooding with water.

Aggressive Fire Fighting: If a decision is made to aggressively fight a fire involving a Tesla module or battery pack, then copious amounts of water should be applied from a safe distance. The water may not suppress all cell thermal runaway reactions within the module or battery pack, but it may cool cells and control the spread of the fire. If possible, direct the application of water towards openings in the battery pack enclosure or module, if any have formed, with the intent of flooding the pack enclosure (or module). The object is to contact the surfaces of the affected and surrounding individual battery cells with water.

Defensive Fire Fighting: If a decision is made to fight a Tesla battery fire defensively, then the fire crew should pull back a safe distance and allow the battery to burn itself out. Fire crews may choose to utilize a water stream or fog pattern to protect exposures or control the path of smoke. A battery fire may continue for several hours and may result in multiple re-ignition events. It may take 24 hours or longer for the battery pack to cool.

Fire Fighter PPE: Firefighters should wear self-contained breathing apparatus (SCBA) and fire and chemical protective turnout gear. Cells or batteries may flame or leak potentially hazardous organic vapors if exposed to excessive heat, fire or over voltage conditions. These vapors may include volatile organic compounds (VOCs), hydrogen gas, carbon dioxide, carbon monoxide, soot, and particulates containing oxides of nickel, aluminum, lithium, copper, and cobalt. Additionally, phosphorus pentafluoride, POF_3 and HF vapors may form

4. FIRST AID MEASURES

Electric Shock / Electrocution: Seek immediate medical assistance if an electrical shock or electrocution has occurred (or is suspected).

Contact with Leaked Electrolyte: The constituent battery cells are sealed. Contents of an open (broken) constituent battery cell can cause skin irritation and/or chemical burns. If materials from a ruptured or otherwise damaged cell or battery contact skin, flush immediately with water and wash affected area with soap and water. If a chemical burn occurs or if irritation persists, seek medical assistance.

For eye contact, flush with significant amounts of water for 15 minutes without rubbing and see physician at once.

Inhalation of Electrolyte Vapors: If inhalation of electrolyte vapors occurs, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

Vent Gas Inhalation: The constituent battery cells are sealed and venting of cells should not occur during normal use. If inhalation of vent gases occurs, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

5. STORAGE PRECAUTIONS

Tesla Roadster battery packs and modules should be stored in approved packaging prior to installation. If Tesla-approved packaging is used for storage, the pack should not be stacked with more than two (2) packages high. Similarly, the Module should not be stacked more than eight (8) packages high.

Do not store Tesla batteries or modules in a manner that allows terminals to short circuit (do not allow the formation of an electrically-conductive path). During storage, Tesla recommends that the high-voltage connector on a Tesla battery pack be sealed with either a mating connector or a Tesla-shipping cap.

The storage area should have appropriate drainage and roof cover so that water cannot fall directly onto the Tesla battery products (or their approved packaging). Exposure to relative humidity greater than 80% for long periods of time (years) could reduce battery life. The storage area should be protected from flooding.

Elevated temperatures can result in reduced battery service life. Tesla batteries and modules stored for longer than one month should be stored at temperatures between -20°C and 40°C (-4 °F and 104 °F), at humidity <80%, and protected from condensation. Extended storage (more than a month) at temperatures outside the recommended range can result in degradation of product lifetime. Storage in areas where temperatures routinely approach or exceed 80°C (176°F) could result in a hazardous condition. Do not store Tesla battery packs or modules near heating equipment, nor expose to direct sunlight for long periods.

Ideally, a Tesla battery packs or modules should be stored at 50% state of charge (SOC) or less. Tesla batteries should not be stored for extended periods either at a full state of charge (SOC) or completely discharged since both conditions adversely impact battery life. Batteries should not be stored untended longer than twelve (12) months since battery service life likely will be adversely impacted. If longer storage is anticipated, please contact Tesla Service at +001 877-798-3752 for instructions.

Extended storage areas should be compliant with the appropriate local fire code requirements.

Acceptable storage density of battery packs and storage height of battery packs will be defined by the local authority having jurisdiction. Requirements and limits will be based upon a number of factors including the structural and fire protection characteristics of the storage area and recommendations for fire protection promulgated by the National Fire Protection Association (NFPA) and similar organizations. At the time of this writing, no Commodity Classification has been defined for lithium-ion cells or battery packs (See NFPA – 13 Standard for the Installation of Sprinkler Systems). Until a Commodity Classification has been defined based on testing by NFPA or a similar organization, Tesla recommends treating lithium-ion cells as equivalent to a Group A Plastic Commodity.

6. HANDLING, STORAGE, & TRANSPORTATION OF DAMAGED BATTERIES

If a battery pack or module(s) has/have been damaged (battery enclosure has been dented or compromised), it is possible that heating is occurring that may eventually lead to a fire. Damaged or opened cells or batteries can result in rapid heating (due to exothermic reaction of constituent materials), the release of flammable vapors, and propagation of self-heating and thermal runaway reactions to neighboring cells.

Before handling or transporting a damaged battery, wait at least 1 hour. Smoke is an indication that a thermal reaction is in progress. If no smoke, flame, leakage of electrolyte or coolant, or signs of heat has been observed for 1 hour, the battery can be moved into a safe location. Such a safe location will be free of flammable materials, secured from access by the general public, and downwind of occupied structures within 50 feet. For example, a fenced, open yard may be an appropriate safe location.

It is possible that a damaged battery may sustain further damage during transportation that may lead to a fire. To further reduce this risk, handle the damaged battery with extreme caution. If the damaged battery pack will be transported, it should be thoroughly secured on an open bed truck for transport. If possible, avoid tunnels and bridges. Keep away from flammable materials. Damaged battery packs should not be transported by air.

DO NOT STORE DAMAGED BATTERY PACKS OR MODULES ADJACENT TO UNDAMAGED BATTERY PACKS or adjacent to flammable or combustible materials. If a damaged battery pack must be stored, it should be placed in a safe location free of flammable and combustible materials, secured from access by the general public, and downwind of occupied structures within 50 feet. For example, a fenced, open yard may be an appropriate safe location.

The battery should be monitored during storage for evidence of smoke, flame, leakage of electrolyte or coolant, or signs of heat. If full-time monitoring of the battery is not possible (for example during extended storage), the safe location should be capable of containing a fire.

Once the battery pack has been moved to a safe location, the battery pack should be evaluated, and discharged, coolant should be drained and other preparations should be made for further transport. Please contact Tesla Service at +001 877-798-3752 to obtain specific instructions for evaluating the battery pack, and preparing it for further transport.

7. DISPOSAL PROCEDURES

Tesla lithium-ion batteries do not contain heavy metals such as lead, cadmium, or mercury.

Battery packs should be disposed of or recycled in accordance with local, state, federal and / or national regulations. Note that regulations regarding disposal of battery packs vary by jurisdiction. In the United States batteries are classified as Universal Waste, and in addition, many individual states have specific regulations regarding disposal of battery packs. For example, in California, all batteries must be taken to a Universal Waste handler or authorized recycling facility.

Tesla batteries contain recyclable materials. Tesla strongly encourages recycling. Tesla recommends that that all battery packs be taken to a Tesla service facility so that the battery packs can be evaluated using proper inspection and test methods, and, if appropriate, be recycled in a safe and efficient manner. For more information on the recycling of Tesla batteries, please contact Tesla Service at +001 877-798-3752.

If disposing without return to Tesla, please consult with local, state, federal and /or national authorities on the appropriate methods for disposal and recycling.

8. MAINTENANCE OR REPAIR

Tesla requests all maintenance, service, and repairs of Tesla products be performed by Tesla approved service personnel or Tesla authorized repair facilities. This includes all proactive and corrective maintenance over the lifetime of a Tesla product. Improper service or repair by personnel not approved nor authorized by Tesla could void the Warranty, lead to failure of the Tesla product, and potentially result in development of an unsafe condition and unexpected electrical events.

9. TRANSPORT INFORMATION

Lithium-ion batteries are regulated as Class 9 Miscellaneous dangerous goods (also known as "hazardous materials") pursuant to the International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air, International Air Transport Association (IATA) Dangerous Goods Regulations, the International Maritime Dangerous Goods (IMDG) Code, European Agreements concerning the International Carriage of Dangerous Goods by Rail (RID) and Road (ADR), and applicable national regulations such as the USA's hazardous materials regulations (see 49 CFR 173.185). These regulations contain very specific packaging, labeling, marking, and documentation requirements. The regulations also require that individuals involved in the preparation of dangerous goods for transport be trained on how to properly package, label, mark and prepare shipping documents. For further industry information regarding transportation of vehicle battery packs, refer to SAE J2950 - Recommended Practices (RP) for Transportation and Handling of Automotive-type Rechargeable Energy Storage Systems (RESS).

UN Number	3480
Proper Shipping Name	Lithium ion batteries
Hazard Classification	Class 9 Miscellaneous
Packing Group	N/A

UN Number	3171
Proper Shipping Name	Battery-powered Vehicle
Hazard Classification	Class 9 Miscellaneous
Packing Group	N/A

Notice: The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. TESLA, INC. makes no warranty, expressed or implied, with respect to this information.