Transportation of Dangerous Goods Directorate
L'Esplanade Laurier
300 Laurier Avenue West
Ottawa, Ontario
K1A 0N5

Direction générale du transport des marchandises dangereuses
L'Esplanade Laurier
300, avenue Laurier Ouest
Ottawa (Ontario)
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Equivalency Certificate
(Approval issued by the competent authority of Canada)

Certificate Number: SU 13991

Template Number: 48NRD

Certificate Holder: Canadian Battery Association

Mode of Transport: Road, Rail, Marine

Effective Date: April 12, 2023

Expiry Date: October 31, 2028

LEGEND

For the purposes of this equivalency certificate, documents referred to by an abbreviation have the following meaning:

TDG Act**:** *Transportation of Dangerous Goods Act, 1992*

TDG Regulations**:** *Transportation of Dangerous Goods Regulations*

49 CFR**:** *Title 49 of the "Code of Federal Regulations" of the United States*

CGSB-43.145: *National Standard of Canada CGSB-43.145, "Design, manufacture and use of large packagings for the transportation of dangerous goods, classes 3, 4, 5, 6.1, 8, and 9", April 2019, published by the Canadian General Standards Board (CGSB)*

CGSB-43.150: *National Standard of Canada CGSB-43.150, "Design, manufacture and use of UN Standardized drums, jerricans, boxes, bags, combination packaging, composite packaging and other packagings for the transport of dangerous goods, classes 3, 4, 5, 6.1, 8, and 9", March 2020, published by the Canadian General Standards Board (CGSB)*

UN Recommendations**:** "*Recommendations on the Transport of Dangerous Goods*", published by the United Nations (UN), as amended from time to time

Manual of Tests and Criteria: *"Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria", published by the United Nations (UN), as amended from time to time*

NOTES

Note 1: Subsection 31(4) of the *TDG Act* stipulates that any non-compliance with the conditions of this equivalency certificate causes the provisions of the *TDG Act* and *TDG Regulations* to apply as though this equivalency certificate did not exist.

Note 2: This equivalency certificate provides no regulatory relief other than specifically stated herein. Therefore, all other requirements of the *TDG Act* and the *TDG Regulations* apply.

PURPOSE

(The following is for information purposes only and is not part of the certificate.)

Part A - New batteries and batteries that will be reused

Part A of this equivalency certificate authorizes the certificate holder to transport lithium-ion batteries in means of containment prescribed in Packing Instruction 903 of *CGSB-43.150* or Packing Instruction LP903 of *CGSB-43.145*. However, despite the requirements of Packing Instruction LP903 of *CGSB-43.145*, when the batteries have a mass of 12 kg or greater and have a strong impact-resistant outer casing, the batteries may be transported in a non-specification packaging, such as a strong outer packaging, protective enclosure, pallet, or handling device. This reflects the allowance to use a non-specification packaging in Packing Instruction P903 of the *UN Recommendations* for new batteries.

Part B - Batteries transported for disposal, recycling or any other reclamation process

Part B of this equivalency certificate authorizes the transport of batteries that are destined for disposal, recycling or any other reclamation process. This certificate prescribes various options for packaging listed in the *UN Recommendations* or *CGSB-43.150*. However, despite these requirements, when the batteries have a mass of 12 kg or greater and have a strong impact-resistant outer casing, the batteries may be transported in a non-specification packaging, such as a strong outer packaging, protective enclosure, pallet, or handling device. This reflects the allowance to use a non-specification packaging in Packing Instructions P903 and LP903 of the *UN Recommendations* for new batteries.

Part C - Damaged, defective or recalled batteries, and Damaged, defective or recalled batteries that are liable to disassemble rapidly, react dangerously, produce a flame or a dangerous evolution of heat, or produce a dangerous emission of toxic, corrosive or flammable gases or vapours

Part C of this equivalency certificate pertains to lithium-ion batteries that are damaged, defective or recalled. It also allows the transport of lithium-ion batteries that are liable to disassemble rapidly, react dangerously, produce a flame or a dangerous evolution of heat, or produce a dangerous emission of toxic, corrosive or flammable gases or vapours.

The equivalency certificate also allows alternative dangerous goods safety mark requirements that are based on the requirements for IBCs in Part 4 of the *TDG Regulations* and the *49 CFR*. However, the conditions of this equivalency certificate do not exactly match the requirements of the *49 CFR*.

CONDITIONS - PART A

New batteries and batteries that will be reused

This equivalency certificate authorizes:

- the **Members of the Canadian Battery Association** to handle, offer for transport or transport,

- any **carrier** on behalf of **a member of the Canadian Battery Association** to handle or transport,

by road or railway vehicle, or by vessel in Canada, dangerous goods that are:

UN Number	Shipping Name and Description	Class	Packing Group
UN3480	LITHIUM ION BATTERIES (including lithium ion polymer batteries)	9	N/A

in a manner that does not comply with:

- Subsection 5.12(1) of the *TDG Regulations* and
- Section 5.14 of the *TDG Regulations*,

if the following conditions are met:

1) Classification

a) Each cell and battery have been determined to meet the criteria for assignment to Class 9 based on tests carried out in accordance with the *Manual of Tests and Criteria*, Part III, subsection 38.3;

Note 1: *The terms* ***"cell"*** *and* ***"battery"*** *are defined in the Manual of Tests and Criteria, Part III, subsection 38.3.*

Note 2: *A "battery module" or "battery pack" is considered to be a battery.*

b) The **Canadian Battery Association** ensures that a paper or electronic copy of this equivalency certificate is provided to all its members.

Note: *A current list of members is available on the* **Canadian Battery Association** *website at:*
http://canadianbatteryassociation.ca/index.php/about-the-cba/members/members

2) Means of Containment

Small packaging with a volume of 450 L or less

a) The cells or batteries with a volume less than or equal to 450 L are transported in accordance with Packing Instruction 903 of *CGSB-43.150*;

Large packaging with a volume over 450 L

b) The cells or batteries with a volume exceeding 450 L are transported in accordance with Packing Instruction LP903 of *CGSB-43.145*;

Non specification packaging for batteries 12 kg or greater

c) Despite condition 2)b) above, when the cells or batteries have a mass of 12 kg or greater and have a strong impact-resistant outer casing, the cells or batteries may be transported in accordance with conditions 2)d) to 2)g) below;

d) The cells or batteries are contained:

   i) in a strong outer packaging,

   ii) in a protective enclosure (e.g., in fully enclosed or slatted wooden crates), or

   iii) on a pallet or other handling devices;

e) The strong outer packaging, protective enclosure, pallet, or handling device, referred to in condition 2)d) of this equivalency certificate, is constructed of suitable material, and of adequate strength and design in relation to the packaging capacity and its intended use;

f) The cells or batteries are protected against short circuit;

g) The cells or batteries are secured to prevent inadvertent movement.

Note: *Conditions 2)c) to 2)g) of this equivalency certificate are based on packing instruction P903 of the UN Recommendations.*

3) Safety marks – Marking, Labelling and Placarding

Volume less than or equal to 450 L

a) When the volume of the battery or the means of containment containing the cells or batteries is less than or equal to 450 L, the means of containment must display:

   i) the Class 9, lithium battery label, in accordance with paragraph 4.10(1)(b.1) of the *TDG Regulations*,

   ii) the shipping name in accordance with section 4.11 of the *TDG Regulations,* and

   iii) the UN number in accordance with section 4.12 of the *TDG Regulations*;

Volume greater than 450 L

b) When the volume of the battery or the means of containment containing the cells or batteries is greater than 450 L, the means of containment or the battery itself shall display the class 9 placards in accordance with Part 4 of the *TDG Regulations*;

c) Despite section 4.15.2 of the *TDG Regulations*, the appropriate UN number may also be displayed on or next to the class 9 placard in accordance with 4.8(2) of the *TDG Regulations*;

Volume greater than 450 L but less than 3785 L (US 1000 gallons)

d) Instead of displaying placards in accordance with subsection 4.15(1) of the *TDG Regulations*, when the volume of the battery or the means of containment containing the cells or batteries is greater than 450 L but less than 3785 L (US 1000 gallons), the means of containment or the battery itself may display on two opposite sides:

   i) The class 9 placard and UN number in accordance with subsection 4.8(2) of the *TDG Regulations*, or

   ii) The class 9 lithium battery label, the UN Number in accordance with section 4.8(1) of the *TDG Regulations***,** and the shipping name in accordance with section 4.11 of the *TDG Regulations*.

4) Documentation

a) The shipping document that accompanies the dangerous goods contains the following information legibly and indelibly printed:

   i) "**Equivalency Certificate SU 13991**", or

   ii) "**Certificat d'équivalence SU 13991**".

5) Training

a) In addition to the requirements of Part 6 (Training) of the *TDG Regulations*, the certificate holder and any person using this equivalency certificate on behalf of the certificate holder ensure that the personnel handling, offering for transport or transporting the dangerous goods are trained in regards to the conditions of this equivalency certificate that relate directly to the person's duties.

CONDITIONS - PART B

Batteries transported for disposal, recycling or any other reclamation process

This equivalency certificate authorizes:

- the **Members of the Canadian Battery Association** and **their clients** to handle, offer for transport or transport,

- **any carrier** on behalf of **the members of the Canadian Battery Association** and **their clients** to handle or transport,

by road or railway vehicle, or by vessel in Canada, dangerous goods that are:

UN Number	Shipping Name and Description	Class	Packing Group
UN3480	LITHIUM ION BATTERIES (including lithium ion polymer batteries)	9	N/A

in a manner that does not comply with:

- Section 5.12(1) of the *TDG Regulations*,
- Section 5.14 of the *TDG Regulations*, and
- Special Provision 138(1)(b) in Schedule 2 of the *TDG Regulations*, but only as it relates to Packing Instruction LP904,

if the following conditions are met:

1) General

a) The cells or batteries are transported for disposal, recycling or any other reclamation process;

b) The cells or batteries are transported in accordance with special provision 138 of Schedule 2 of the *TDG Regulations,* except for 138(1)(b);

Note: *Special Provision 138(1)(b) in Schedule 2 of the TDG Regulations requires compliance with LP904. Instead, conditions 2)a) and 2)b) of this equivalency certificate requires compliance with alternate packing instructions.*

c) The **Canadian Battery Association** ensures that a paper or electronic copy of this equivalency certificate is provided to all its members;

Note: *A current list of members is available on the* **Canadian Battery Association** *website at:*
http://canadianbatteryassociation.ca/index.php/about-the-cba/members/members

d) The **members of the Canadian Battery Association** must ensure that a paper or electronic copy of this equivalency certificate is provided to all their clients using this equivalency certificate.

2) Means of Containment

Small packaging with a volume less than or equal to 450 L

a) The cells or batteries with a volume less than or equal to 450 L are transported in accordance with Packing Instruction:

i) 909 of *CGSB-43.150*, or

ii) P909 of the *UN Recommendations*;

Large packaging with a volume over 450 L

b) The cells or batteries with a volume exceeding 450 L are transported in accordance with Packing Instruction:

i) LP904 of *CGSB-43.145*, or

ii) LP904 of the *UN Recommendations*;

Non specification packaging for a cell or battery 12 kg or greater

c) Despite conditions 2)a) and 2)b) above, when a cell or battery has a mass of 12 kg or greater and have a strong impact-resistant outer casing, the cells or batteries may be transported in accordance with conditions 2)d) to 2)g) below;

d) The cells or batteries are contained:

i) in a strong outer packaging,

ii) in a protective enclosure (e.g., in fully enclosed or slatted wooden crates), or

iii) on a pallet or other handling devices;

e) The strong outer packaging, protective enclosure, pallet, or handling device, referred to in condition 2)d) above, is constructed of suitable material, and of adequate strength and design in relation to the packaging capacity and its intended use;

f) The cells or batteries are protected against short circuit;

g) The cells or batteries are secured to prevent inadvertent movement;

Note: *Conditions 2)c) to 2)g) are based on packing instruction P903 of the UN Recommendations.*

3) Safety marks – Marking, Labelling and Placarding

Volume less than or equal to 450 L

a) When the volume of the means of containment containing the cells or batteries is less than or equal to 450 L, the means of containment must display:

   i) the Class 9, lithium battery label, in accordance with paragraph 4.10(1)(b.1) of the *TDG Regulations*,

   ii) the shipping name in accordance with section 4.11 of the *TDG Regulations,* and

   iii) the UN number in accordance with section 4.12 of the *TDG Regulations*;

Volume greater than 450 L

b) When the volume of the battery or the means of containment containing the battery, is greater than 450 L, the means of containment or the battery itself shall display the class 9 placards in accordance with Part 4 of the *TDG Regulations*;

c) Despite section 4.15.2 of the *TDG Regulations*, the appropriate UN number may also be displayed on or next to the class 9 placard in accordance with 4.8(2) of the *TDG Regulations*;

Volume greater than 450 L but less than 3785 L (US 1000 gallons)

d) Instead of displaying placards in accordance with subsection 4.15(1) of the *TDG Regulations*, when the volume of the battery or the means of containment containing the battery, is greater than 450 L but less than 3785 L (US 1000 gallons), the means of containment or the battery itself may display on two opposite sides:

   i) the class 9 placard and UN number in accordance with subsection 4.8(2) of the *TDG Regulations*, or

   ii) the class 9 lithium battery label, the UN Number in accordance with subsection 4.8(1) of the *TDG Regulations***,** and the shipping name in accordance with section 4.11 of the *TDG Regulations*;

Additional markings required on all packages or batteries

e) In addition to the labels or placards required in the conditions above, the means of containment or the battery itself must be durably and legibly marked on a contrasting background, in characters that are at least 12 mm high, with the words below, as appropriate:

i) "**Lithium batteries for disposal – Forbidden for transport by aircraft**",

ii) "**Lithium batteries for recycling – Forbidden for transport by aircraft**",

iii) "**Piles au lithium destinées à l'élimination – Interdit par transport aérien**", or

iv) "**Piles au lithium destinées au recyclage – Interdit par transport aérien**".

4) Documentation

a) The shipping document that accompanies the dangerous goods contains the following information legibly and indelibly printed:

i) "**Equivalency Certificate SU 13991**", or

ii) "**Certificat d'équivalence SU 13991**".

5) Training

a) In addition to the requirements of Part 6 (Training) of the *TDG Regulations*, the certificate holder and any person using this equivalency certificate on behalf of the certificate holder ensure that the personnel handling, offering for transport, or transporting the dangerous goods are trained to the conditions of this equivalency certificate that relate directly to the person's duties.

CONDITIONS - PART C

Damaged, defective or recalled batteries, and

Damaged, defective or recalled batteries that are liable to disassemble rapidly, react dangerously, produce a flame or a dangerous evolution of heat, or produce a dangerous emission of toxic, corrosive or flammable gases or vapours

This equivalency certificate authorizes:

- the **Members of the Canadian Battery Association** and **their clients** to handle, offer for transport or transport,
- **any carrier** on behalf of **the members of the Canadian Battery Association** and **their clients** to handle or transport,

by road or railway vehicle, or by vessel in Canada, dangerous goods that are:

UN Number	Shipping Name and Description	Class	Packing Group
UN3480	LITHIUM ION BATTERIES (including lithium ion polymer batteries)	9	N/A

in a manner that does not comply with:

- Section 5.12(1) of the *TDG Regulations*,
- Section 5.14 of the *TDG Regulations*, and
- Special Provision 137(5) in Schedule 2 of the *TDG Regulations*,

if the following conditions are met:

1) General

a) The cells or batteries are damaged, defective or subject to a recall;

***Note**: This includes batteries that are liable to disassemble rapidly, react dangerously, produce a flame or a dangerous evolution of heat, or produce a dangerous emission of toxic, corrosive or flammable gases or vapours.*

b) The cells or batteries are transported in accordance with special provision 137 in Schedule 2 of the *TDG Regulations,* except for 137(5);

c) The **Canadian Battery Association** ensures that a paper or electronic copy of this equivalency certificate is provided to all its members;

Note: *A current list of members is available on the* ***Canadian Battery Association*** *website at:*
http://canadianbatteryassociation.ca/index.php/about-the-cba/members/members

d) The **members of the Canadian Battery Association** must ensure that a paper or electronic copy of this equivalency certificate is provided to all their clients using this equivalency certificate.

2) Means of Containment

Damaged, defective or recalled batteries

Small packaging with a volume of 450 L or less

a) Damaged, defective or recalled cells or batteries with a volume less than or equal to 450 L are transported in accordance with Packing Instruction:

i) 908 *CGSB-43.150,*

ii) P908 of the *UN Recommendations*, or

iii) P911 of the *UN Recommendations*;

Large packaging with a volume over 450 L

b) Damaged, defective or recalled cells or batteries with a volume exceeding 450 L are transported in accordance with Packing Instruction:

i) LP904 of *CGSB-43.145*,

ii) LP904 of the *UN Recommendations,* or

iii) LP906 of the *UN Recommendations*;

Damaged, defective, or recalled batteries that are liable to disassemble rapidly, react dangerously, produce a flame or a dangerous evolution of heat, or produce a dangerous emission of toxic, corrosive, or flammable gases or vapours

Small packaging with a volume of 450 L or less

c) Damaged, defective, or recalled cells or batteries that are liable to disassemble rapidly, react dangerously, produce a flame or a dangerous evolution of heat or produce a dangerous emission of toxic, corrosive or flammable gases or vapours with a volume less than or equal to 450 L are transported in accordance with Packing Instruction P911 of the *UN Recommendations*;

Large packaging with a volume over 450 L

d) Damaged, defective or recalled cells or batteries that are liable to disassemble rapidly, react dangerously, produce a flame or a dangerous evolution of heat or produce a dangerous emission of toxic, corrosive or flammable gases or vapours with a volume exceeding 450 L are transported in accordance with Packing Instruction LP906 of the *UN Recommendations*;

3) Safety marks – Marking, Labelling and Placarding

Volume less than or equal to 450 L

a) When the volume of the means of containment containing the cells or batteries is less than or equal to 450 L, the means of containment must display:

i) the Class 9, lithium battery label, in accordance with paragraph 4.10(1)(b.1) of the *TDG Regulations*,

ii) the shipping name in accordance with section 4.11 of the *TDG Regulations,* and

iii) the UN number in accordance with section 4.12 of the *TDG Regulations*;

Volume of 450 L or more

b) When the volume of the battery or the means of containment containing the battery, is greater than 450 L, the means of containment or the battery itself shall display the class 9 placards in accordance with Part 4 of the *TDG Regulations*;

c) Despite section 4.15.2 of the *TDG Regulations*, the appropriate UN number may also be displayed on or next to the class 9 placard in accordance with 4.8(2) of the *TDG Regulations*;

Volume greater than 450 L but less than 3785 L (US 1000 gallons)

d) Instead of displaying placards in accordance with subsection 4.15(1) of the *TDG Regulations*, when the volume of the battery or the means of containment containing the battery, is greater than 450 L but less than 3785 L (US 1000 gallons), the means of containment or the battery itself may display on two opposite sides:

i) the class 9 placard and UN number in accordance with subsection 4.8(2) of the *TDG Regulations*, or

ii) the class 9 lithium battery label, the UN Number in accordance with subsection 4.8(1) of the *TDG Regulations***,** and the shipping name in accordance with section 4.11 of the *TDG Regulations*.

Additional markings required on all packages or batteries

e) In addition to the labels or placards required in the conditions above, the means of containment is durably and legibly marked on a contrasting background in characters that are at least 12 mm high, with the words:

i) "**Damaged/Defective Lithium Ion Batteries – Forbidden for transport by aircraft**", or

ii) "**Piles au lithium ionique endommagées/défectueuses – Interdit par transport aérien**".

4) Documentation

a) The shipping document that accompanies the dangerous goods contains the following information legibly and indelibly printed:

i) "**Equivalency Certificate SU 13991**", or

ii) "**Certificat d'équivalence SU 13991**".

5) Training

a) In addition to the requirements of Part 6 (Training) of the *TDG Regulations*, the certificate holder and any person using this equivalency certificate on behalf of the certificate holder ensure that the personnel handling, offering for transport, or transporting the dangerous goods are trained to the conditions of this equivalency certificate that relate directly to the person's duties.

Signature of Issuing Authority

David Lamarche, P. Eng., ing.

David Lamarche, P. Eng., ing.
Manager, Approvals and Special Regulatory Projects

Canada

(The following is for information purposes only and is not part of the certificate.)

Contact Person:	Colin McKean Canadian Battery Association 536 Broughton Street, Unit Fl3 Victoria BC V8W 1C6
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Legend for Certificate Number

SH - Road, SR - Rail, SA - Air, SM - Marine
SU - More than one Mode of Transport
Ren - Renewal

For more information:

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