



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)
K1A 0N5



Equivalency Certificate (Approval issued by the competent authority of Canada)

Certificate Number: SH 12799
Certificate Holder: Cimarron Composites, LLC
Mode of Transport: Road
Effective Date: March 1, 2019
Expiry Date: March 31, 2021

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*

CSA B341-18: *CSA Standard B341-18, "UN pressure receptacles and multiple-element gas containers for the transport of dangerous goods", June 2018, published by the Canadian Standards Association (CSA)*

CSA B342-18: *CSA Standard B342-18, "Selection and use of UN pressure receptacles, multiple-element gas containers, and other pressure receptacles for the transport of dangerous goods, Class 2", June 2018, published by the Canadian Standards Association (CSA)*

ISO 1496-3:1995: *ISO 1496-3:1995, "Series 1 freight containers -- Specification and testing -- Part 3: Tank containers for liquids, gases and pressurized dry bulk", February 1995, published by the International Organization for Standardization (ISO)*

ISO 11515-2013: *ISO 11515-2013, "Gas Cylinders – Refillable composite reinforced tubes of water capacity between 450 L and 3000 L – Design, construction and testing", July 2013, published by the International Organization for Standardization (ISO)*

CONDITIONS

This equivalency certificate authorizes:

- 1) Cimarron Composites, LLC, to design, manufacture, sell, offer for sale, deliver, or distribute in Canada, means of containment used or intended to be used in importing, handling, offering for transport, or transporting dangerous goods in a manner that does not comply with:
 - section 5.1 and Part 8 of the *TDG Act*,
- 2) any person to sell, offer for sale, deliver, distribute, import, or use a standardized means of containment in a manner that does not comply with:
 - Part 8 of the *TDG Act*, and
- 3) any person to handle, offer for transport, transport, or import, by road vehicle, dangerous goods included in Class 2 – Gases, in a means of containment, in a manner that does not comply with:
 - sections 5(a) in relation to safety requirements only, 5(c), and 5(d) of the *TDG Act*,
 - paragraphs 1.7(a) and 1.7(c) of the *TDG Regulations*,
 - sections 5.1.1 and 5.2 of the *TDG Regulations*, and
 - subparagraph 5.10(1)(a)(iii) of the *TDG Regulations*, in relation to the manufacture, selection, and use of means of containment only,

if the following conditions are met:

- (a) Subject to conditions (b) to (o) of this equivalency certificate, the requirements with respect to *ISO 11515-2013* composite UN tubes set out in *CSA B342-18* are complied with;
- (b) The tubes are used only for the following dangerous goods:
 - UN1002, AIR, COMPRESSED, with not more than 23.5% oxygen, by volume, Class 2.2
 - UN1006, ARGON, COMPRESSED, Class 2.2
 - UN1035, ETHANE, Class 2.1
 - UN1046, HELIUM, COMPRESSED, Class 2.2
 - UN1049, HYDROGEN, COMPRESSED, Class 2.1
 - UN1065, NEON, COMPRESSED, Class 2.2
 - UN1066, NITROGEN, COMPRESSED, Class 2.2
 - UN1971, METHANE, COMPRESSED; or NATURAL GAS, COMPRESSED with high methane content, Class 2.1

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- (c) Any tubes that have been subjected to fire are not returned to service;
- (d) Not more than 15 years has elapsed since the original manufacturing test date for each tube;
- (e) Any means of containment that has been involved in a vehicle collision is removed from service until the service and structural equipment and the tubes comprising the means of containment have been inspected for damage and determined, by the certificate holder, to be in good working order;
- (f) The tubes and service equipment are permanently mounted inside a frame in accordance with the drawings and reports filed by the certificate holder with the Executive Director, Regulatory Frameworks and International Engagement, Regulatory Affairs Branch, Transportation of Dangerous Goods Directorate, Transport Canada and the frame protects the tubes and the service equipment against damage from impact or overturning;
- (g) The means of containment meets the requirements applicable to multiple-element gas containers and their fastenings in Clauses 5.1.6, 5.1.7, and 5.1.8 of *CSA B341-18*;
- (h) The means of containment satisfies the external restraint (longitudinal), internal restraint (longitudinal) and internal restraint (lateral) framework tests specified in *ISO 1496-3:1995*;
- (i) The frame is permanently mounted to a vehicle or trailer and the requirements of Clauses 4.11(a) to 4.11(e) of *CSA B342-18* are complied with;
- (j) The tubes are manifolded and the requirements of Clauses 4.10.2 to 4.10.6 of *CSA B342-18* are complied with;
- (k) Despite clauses 4.1.7 and 5.1.3(a) of *CSA B342-18*, each tube is designed, constructed, and initially inspected and tested in accordance with *ISO 11515-2013* and the fourth revision of Special Permit DOT-SP 20418 issued by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration;
- (l) Each tube is manufactured and initially inspected and tested by Cimarron Composites, LLC at 3149 Lodge Road in Huntsville, AL, USA;
- (m) The test pressure of the tubes is 450 bar;
- (n) Each tube is periodically inspected and tested at least every five years in accordance with the requirements applicable to UN composite tubes in *CSA B341-18* at which time the frame and service equipment are inspected in accordance with items a) to f) of Clause 19.2.1 of *CSA B341-18*, as applicable;
- (o) The frame of the means of containment is marked with the words “**No Lifting**” and “**No Stacking**” in characters of not less than 20 mm in height;

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- (p) Each side of the means of containment as well as the rear of the means of containment is marked with the letters and numbers “**TC-SU 12799**” that are of a colour contrasting with the background and not less than 50 mm in height;
- (q) The certificate holder, tube owner, or user reports any incident involving loss of contents or failure of the means of containment to the Executive Director, Regulatory Frameworks and International Engagement, Regulatory Affairs Branch, Transportation of Dangerous Goods Directorate, Transport Canada;
- (r) A paper or electronic copy of this equivalency certificate must be maintained at each facility where the means of containment is offered or reoffered for transportation; and
- (s) The shipping document that accompanies the dangerous goods contains the following information legibly and indelibly printed:
 - (i) “**Equivalency Certificate SH 12799**”, or
 - (ii) “**Certificat d’équivalence SH 12799**”.

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 Act and Regulations to apply as though this equivalency certificate did not exist.

Note 2: Any other requirement of the *TDG Regulations* applies.

Signature of Issuing Authority



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

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(The following Explanatory Note is for information purposes only and is not part of this certificate.)

Explanatory Note

This equivalency certificate authorizes the use of composite UN tubes manufactured to *ISO 11515* and approved by the U.S. Department of Transportation - Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA has yet to reference *ISO 11515* in its regulations and therefore has issued its approval of these composite UN tubes in the form of a Special Permit. Transport Canada has issued this equivalency certificate to accept composite UN tubes manufactured in accordance with the fourth edition of DOT Special Permit 20418 given the provisions for mutual recognition of UN pressure receptacles approved by PHMSA in *CSA B342-18* and given that *CSA B341-18* and *CSA B342-18* authorize the manufacture and use of *ISO 11515* composite UN tubes.

Legend for Certificate Number

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