



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh St., S.W.  
Washington, D.C. 20590

DOT-E 12411  
(FIRST REVISION)

EXPIRATION DATE: March 31, 2004

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: UTC Fuel Cells, L.L.C.  
South Windsor, Connecticut  
(Former grantee: International Fuel Cells)
2. PURPOSE AND LIMITATION:
  - a. This exemption authorizes the transportation in commerce of a fuel cell gasoline reforming apparatus containing non-bulk quantities of certain Division 4.2 self-heating solid catalyst pellets within several non-DOT specification stainless steel process vessels. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
  - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.212 in that a non-DOT specification packaging is not authorized, except as specified herein.
5. BASIS: This exemption is based on the application of UTC Fuel Cells dated March 27, 2002, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Self-heating solid, inorganic, n.o.s. (Nickel metal de- sulfurizing catalyst pellets)	4.2	UN3190	II
Self-heating solid, inorganic, n.o.s. (Copper/Zinc shift conversion catalyst pellets)	4.2	UN3190	II

7. SAFETY CONTROL MEASURES:a. PACKAGING -

(1) The Nickel metal de-sulfurizing catalyst pellets must be packaged and transported under 1.5 to 2.5 psig of dry inert gas pressure within a totally sealed stainless steel vessel which is fabricated, welded, proof tested to a maximum allowable working pressure of 209 psig and inspected according to the ANSI B31.1 Power Piping Code. The total net weight of Nickel de-sulfurizing catalyst pellets may not exceed 20 pounds per gasoline reforming apparatus.

(2) The Copper/Zinc shift-conversion catalyst pellets shall be packaged and transported under 1.5 to 2.5 psig of dry, inert gas pressure within a totally sealed stainless steel vessel which is fabricated, welded, proof tested to a maximum allowable working pressure of 14 psig and inspected according to the ANSI B31.1 Power Piping Code. The total net weight of copper/zinc shift-conversion catalyst pellets may not exceed 110 pounds per gasoline reforming apparatus.

(3) The vessel must be designed in accordance with the IFC Drawing on file with the Office of Hazardous Materials Exemptions and Approvals.

b. OPERATIONAL CONTROLS - The entire gasoline reforming apparatus module incorporating the hazardous materials may not contain other hazardous materials (e.g., gasoline or other flammable liquids) when transported. The apparatus module must be over-packed in a non-specification wooden, metal or plastic transport container.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, cargo vessel, and cargo aircraft only.10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this exemption. The shipper must furnish a current copy of this exemption to the air carrier before or at the time the shipment is tendered.11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

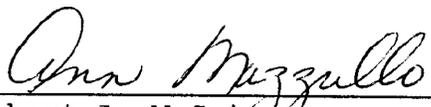
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when this exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:

  
\_\_\_\_\_  
for Robert A. McGuire  
Associate Administrator for  
Hazardous Materials Safety

APR 18 2002

\_\_\_\_\_  
(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.  
Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at <http://hazmat.dot.gov/exemptions> Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: scw/sln