



U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

1200 New Jersey Ave, SE  
Washington, D.C. 20590

MAY 19 2010

Mr. Jens-Thomas Rueckert  
Manager Training & Projects  
Gefahrgutberatung/Gefahrgutausbildung  
Baden Airpark  
Airport Boulevard B 210  
D-77836 Rheinmünster Germany

Ref. No.: 10-0043

Dear Mr. Rueckert:

This is in response to your February 25, 2010 email requesting clarification of the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI) with regard to their use as authorized by the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask for clarification of the requirements referenced in United States (U.S.) Variation 16 of the ICAO TI applicable to the air transport of air bag modules, air bag inflators, and seatbelt pretensioners.

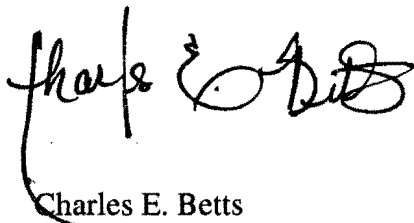
According to your letter most air bags produced in Germany are assigned either "UN0503, Air bag inflators, *or* Air bag modules, *or* Seat-belt pretensioners, 1.4G, PG II" or "UN3268, Air bag inflators, *or* Air bag modules, *or* Seat-belt pretensioners, 9, PG III" depending on whether the article meets the requirements of test series 6(c) in the United Nations Manual of Tests and Criteria. In accordance with § 171.23 and U.S. Variation 16, air bag inflators, air bag modules, and seat-belt pretensioners transported to from or within the United States must be reviewed, approved and assigned an EX number by the competent authority of the United States. U.S. Variation 16 also requires air bag inflators, modules, and pretensioners that meet the definition for a Division 1.4G explosive to be transported using the description "UN0431, Articles, pyrotechnic *for technical purposes*, 1.4G, PG II."

As provided in § 172.102(c), Special provision 161, for transportation within the United States, air bag inflators, air bag modules, or seat belt pretensioners that meet the criteria for a Division 1.4G explosive must be transported using the description, "UN0431, Articles, pyrotechnic *for technical purposes* 1.4G, PG II." This provision applies only to domestic transport.

Shipments that originate outside of the United States that are offered for transportation and transported in accordance with the ICAO TI are not subject to this requirement. However, you should note that prior to transport in commerce, these devices must be reviewed, approved and assigned an EX number by the competent authority of the United States. We anticipate correcting this inconsistency in U.S. Variation 16 in the near future.

I hope this answers your inquiry. If you have further questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles E. Betts". The signature is written in a cursive style with a large initial "C" and "E".

Charles E. Betts  
Chief, Standards Development  
Office of Hazardous Materials Standards

Drakeford, Carolyn (PHMSA)

Leary  
\$ 172.101  
\$ 173.56

**From:** INFOCNTR (PHMSA)  
**Sent:** Thursday, February 25, 2010 8:31 AM  
**To:** Drakeford, Carolyn (PHMSA)  
**Cc:** Supko, Ben (PHMSA)  
**Subject:** FW: Transport of UN 0503, Airbag modules by air from Europe to US

Air Bags  
10-0043

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**From:** Jens-Thomas Rueckert [mailto:T.Rueckert@logar.de]  
**Sent:** Thursday, February 25, 2010 3:58 AM  
**To:** INFOCNTR (PHMSA)  
**Subject:** Transport of UN 0503, Airbag modules by air from Europe to US

Dear Sirs,

we are seeking regulatory guidance in regard to the transport of Air bag modules, Air bag inflators and seat belt pretensioners from Europe - particularly Germany - by air freight to the US.

LOGAR is a Dangerous Goods training and consulting firm. The issue in question has lately arisen with a customer whose product portfolio contains airbags which are to be exported to the US as well.

DOT-PHMSA has filed the following variation in the ICAO TI and the IATA DGR:

USG-16 Air bag inflators, air bag modules and seat belt pretensioners may not be transported to, from or within the United States without prior approval by the appropriate national authority of the US (see USG-01), Attention: Office of Hazardous Materials Special Permits and Approvals (PHH-30). Such approval remains valid for subsequent transport provided there is no change in its composition, design or packaging. Air bag inflators, modules and pretensioners that meet the criteria for a Division 1.4G explosive must be transported using the description Articles, pyrotechnic for technical purposes UN 0431. The dangerous goods transport document (Shipper's Declaration) must contain the EX number or product code for each approved inflator, module or pretensioner in association with the basic description required in 8.1.6.9.1. If product codes are used they must be traceable to the specific EX number assigned to the inflator, module or pretensioner, as applicable, the appropriate authority of the US The EX number or product code is not required to be marked on the outside package.

I have also consulted 49 CFR (Rev.Oct.01, 2009) § 172.320, § 173.50 to § 173.52, § 173.56 to § 173.62 which is consistent with the variation filed in the ICAO TI and the IATA DGR.

Since class 1 is a restricted class, the classification of explosives is undertaken by competent authorities in the country of manufacture. For Germany this is the BAM Bundesanstalt fuer Materialforschung (Federal Institute for Materials research).

Most Air bags which are produced in Germany are classified either as UN 0503, Air Bag Inflator or Air bag module or UN 3268, Air bag Inflator or Air bag module; depending on whether or not the article in question meets the requirements of test series 6(c) in the UN Manual of Test and Criteria in accordance with Special Provision A 115 IATA/ICAO / Special Provision 280 in the UN Model Regulations:

A 115 (280) This entry applies to articles which are used as life saving vehicle air bag inflators or air bag modules or seat-belt pretensioners, and which contain dangerous goods of Class 1 or dangerous goods of other classes and when transported as component parts and when these articles are presented for transport have been tested in accordance with Test series 6(c) of Part I of the UN Manual of Tests and Criteria with no explosion of the device, no fragmentation of the device casing or pressure vessel and no projection hazard nor thermal effect which would significantly hinder fire-fighting or other emergency response efforts in the immediate vicinity.

Because classification of explosives must have competent authority approval (BAM in Germany), Shippers are required to indicate the UN-Number and proper shipping name which has been assigned by that competent authority on the shipping papers.

However, USG-16 requires that for airbags in Division 1.4G the proper shipping name "Articles, pyrotechnic, for technical purposes" and the UN number 0431 are to be used.

This would mean factual non-compliance with European requirements where air bags are classified by a national competent authority as UN 0503, since transport of explosive substances and articles must be undertaken using the classification approved by competent authorities.

This being said we are clear about the requirement that all explosives (with the exception of those excepted under § 173.56(h)) must have undergone testing in the US prior to shipping and the appropriate EX-Number (or a traceable stock number) be indicated on the shipping paper, as also stipulated in state variation USG-05 ICAO/IATA.

However, the requirement to list the EX-number is an additional requirement, but classification (UN-Number and PSN) must be consistent with national requirements.

For the purpose of proper training we would very much appreciate your regulatory guidance on this issue.

Sincerely Yours,

Jens-Thomas Rueckert

Jens-Thomas Rueckert  
Manager Training & Projects

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