



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

AUG 7 1998

Mr. Ray Williams
Mind2Market Inc.
12270 Cherrywood St.
Broomfield, CO 80020

Ref. No: 98-0169

Dear Mr. Williams:

This is in response to your letter of June 21, 1998, requesting clarification on the requirements for limited quantity shipments of compressed gas under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). In your letter you describe a small balloon signaling device with an alloy steel cylinder pressurized to approximately 7,000 psi packaged as an integral part of the balloon inflation mechanism. The whole device is intended to be marketed to the public as a retail item. The cylinder of helium is non-refillable and has an internal volume of less than 7.2 cubic inches. Your questions have been paraphrased and answered as follows:

- Q1. You first asked us to confirm that your cylinders would qualify for the limited quantity provision.
- A1. Section 173.306(a) excepts certain limited quantities of compressed gases from labeling (except when offered for transportation by air) and, unless otherwise required, the specification packaging requirements when packed in accordance with the provisions in § 173.306. The limited quantity provision excepts compressed gases when in containers of not more than 4 fluid ounces capacity (7.22 cubic inches or less) except cigarette lighters (§ 173.306(a)(1)). In addition, each package must not exceed 30 kg (66 pounds) gross weight. Assuming that each of your packages does not exceed 66 pounds gross weight, it appears that your scenario would meet the conditions of this limited quantity exception.
- Q2. Other than normal OSHA standards, are there any other government or DOT regulations regarding the manufacture, shipping or transportation of a pressurized cylinder of this nature that we must comply with?

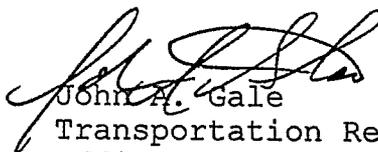
173.306

- A2. If the helium cylinders described in your scenario meet the limited quantity provisions, the cylinders would not have to meet the specification packaging requirements and, if not transported by aircraft, the labeling requirements of the HMR. Shipments of compressed gases packaged in limited quantities must comply with all other requirements in the HMR from which they have not been excepted.
- Q3. Will the DOT need to be involved in reviewing manufacturing facilities or destructive testing data prior to the start of production this summer?
- A3. If the cylinders do not meet the limited quantity provisions, they would be required to meet the specification packaging requirements in 49 CFR Part 178, and be re-tested in accordance with § 173.34(e). For most cylinders, inspections and verifications required by Part 178 must be performed by an independent inspection agency approved in writing by the Associate Administrator, in accordance with § 173.300a (§ 178.35(b)(1)). DOT is not directly involved with the review of manufacturing facilities or destructive testing data prior to the start of production.
- Q4. Does this item qualify to be classified as an ORM-D material?
- A4. Additional exceptions are provided in § 173.306(h) for limited quantity shipments of compressed gases which meet the definition for consumer commodity. A limited quantity which conforms to the provisions of § 173.306(a)(1), (a)(3), or (b) and is a "consumer commodity" as defined in § 171.8, may be re-named "consumer commodity" and re-classified as ORM-D material. Assuming that your helium cylinders meet the limited quantity provisions of § 173.306(a)(1), and the signaling devices meet the definition of "consumer commodity" in § 171.8, your material may be re-classified as ORM-D material, and qualify for the exceptions in § 173.306(h).

- Q5. What labeling and shipping paper requirements would pertain to this product for normal ground transportation, if any?
- A5. Each package containing an ORM-D material must be marked on at least one side or end with the ORM-D designation (§ 172.316). In addition, ORM-D materials are not subject to the shipping paper requirements of Part 172, Subpart C, unless the materials meet the definition of a hazardous substance or hazardous waste or unless offered for transportation or transported by aircraft (§ 173.306(h)(2)).

I hope this satisfies your request.

Sincerely,



John A. Gale
Transportation Regulations Specialist
Office of Hazardous Materials Standards

BAH
File: 173.306

6/21/98

Attn: Edward Mazzullo
Director of the Office of Hazardous Material Standards
DOT RSPA DM-10
400 7th St. SW
Washington, DC 20590

Dear Sir,

I am representing a customer that intends to begin the manufacture and shipping of a small balloon signaling device that will have an alloy steel compressed helium cylinder pressurized to approximately 7000 psi. The cylinder will be packaged as an integral part of the balloon inflation mechanism, and is intended to be marketed to the public as a retail item. This cylinder will be a non-refillable high pressure helium cylinder that has an internal volume of less than 7.2 cubic inches. Attached is a drawing of the proposed cylinder.

So that my client can be in strict regulatory compliance, could you please address the following questions in writing. Please be specific.

The table in 49CFR172.101 classifies compressed helium as a Hazard Class 2.2 material, and references 49CFR173.306 as a packaging exception. After reading 49CFR173.306, I am under the impression that this cylinder would be inherently exempt from DOT requirements and regulation because of the limited quantity rule, and would not have to comply with any of the packaging requirements in 49CFR178.

Question #1: Do you concur with this assessment?

Question #2: Other than normal OSHA standards, are there any other government or DOT regulations regarding the manufacture, shipping or transportation of a pressurized cylinder of this nature that we must comply with?

Question #3: Will the DOT need to be involved in reviewing manufacturing facilities or destructive testing data prior to the start of production this summer?

Question #4: Does this item qualify to be classified as a ORM-D material?

Question #5: What labeling and shipping paper requirements would pertain to this product for normal ground transportation, if any?

Your rapid response would be greatly appreciated.

Sincerely,

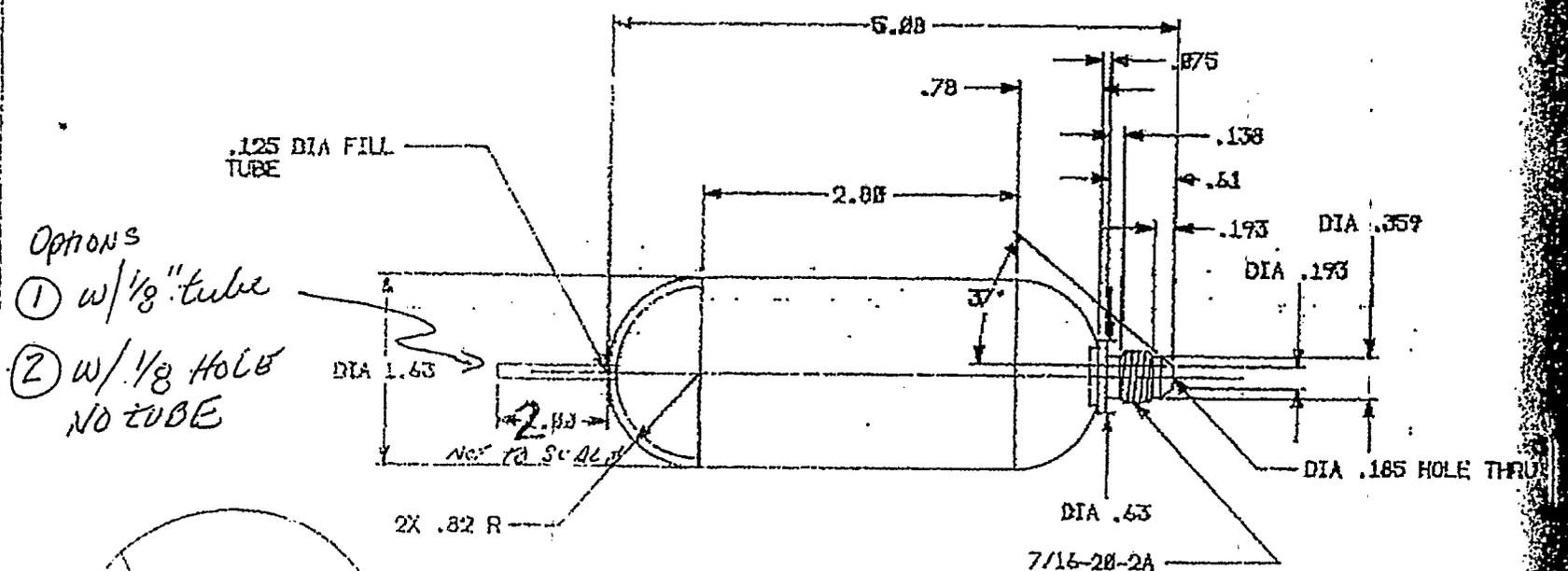


Charlie King - PE, representing Mind2Market Inc., and Western Innovations Inc.
96 DeFrance Way
Golden, CO 80401

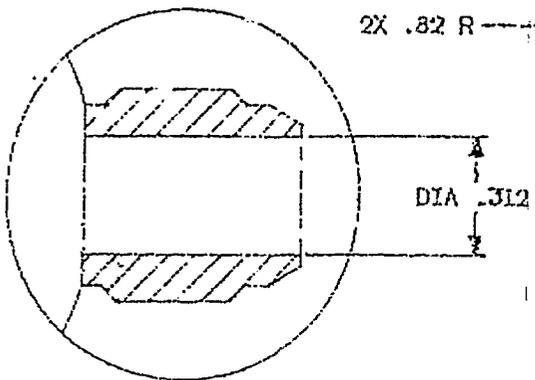
enc: 1 drawing

Mind 2 market:

303 438 9185



- Options
- ① w/1/8" tube
 - ② w/1/8 Hole NO TUBE



MAKE FROM 4340 H.R.A TUBING WITH .080 WALL THICKNESS. WALL THICKNESS MAY VARY ON SPHERICAL RADIUS BUT NOT LESS THAN .080.

Western INNOVATIONS
incorporated

Jerry Jernigan

Assembly, Bottling, Blister, Skin & Shrink Packaging
15508-G East 19th Avenue, Aurora, Colorado 80011
Phone (303) 340-3611 Fax (303) 367-5930

TOLERANCE:	
.X	±.06
.XX	±.01
.XXX	±.005
.XXXX	±.0005

SHEET OF	
MATERIAL:	4148 CrMo ALLOY STEEL
H.T.	38 - 42 Rc
COATING:	

MIND2MARKET	
AEROSearch DIV	
GAS BOTTLE	
DATE: 3/28/97	P/N: RE1-08