

EXEMPTION EVALUATION FORM

(Revised as of May 20, 1998)

Comment [COMMENT1]: File:
k:\forms\ev_form.wpd,
revised 5-20-98)

PART 1 APPLICANT

1A. Exemption Number : 13208

Application Number: 46533

Project Officer : STANISZEWSKI

1B. Date of Application: February 19, 2003

1C. Name of Applicant:

Title: Company Name: Provensis Limited of South Harefield
Address:

Middlesex UK

Phone Number:

1D. U.S. Agent for foreign applicant or Consultant Name:

Company name: HMT Associates, L.L.C.
Address: 603 King Street, Alexandria, VA 22314
Phone Number: 703-549-0727

1E. Summary of What Applicant is Requesting: To authorize the transportation in commerce of aerosol containers that have not been subjected to the hot water bath test for use in transporting non-flammable compressed gas.

1F. Regulation(s) exempted:

1G. Modes of Transportation:

1 Motor Vehicle (X) 2 Rail Freight (X)
3 Cargo Vessel (X) 4 Cargo Aircraft (X)
5 Passenger Aircraft (X)

Comment [COMMENT2]: [Note:
Be specific, define
limitation on each section
as appropriate]

PART 2 REVIEW FOR DOCKETING

- () Application contains sufficient information to support docketing.
- () Application is incomplete or unnecessary and should be

returned for the following reason(s).

Pre-decisional Document until application is granted or denied
- Not subject to FOIA while pre-decisional -

PART 3 HAZARDOUS MATERIALS

3A. Hazardous Materials to be shipped:

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group

3B. Is the hazardous material capable of being detonated? (If No - go to 3C)

If so, under what conditions?

- (1) What special precautions have been taken to prevent these conditions in transportation?
- (2) Has the hazardous material been classed as an explosive?
 - Has it been tested and approved under § 173.56?
 - Is stabilization required and what type?

3C. Other risks presented by the material that warrant special assessment. (e.g. flammable or toxic gases produced upon contact with water, material can initiate or enhance a fire, article or device contains an ignition source)

Comment [COMMENT3]: [Note: See Attachment 1 for a list of hazard sources]

PART 4 PACKAGING

4A. Is the applicant seeking an exemption from the packaging requirements?
(If No - Go on to Part 5)

- 6B. Can any rough estimate be made on the extent of the use of this exemption? How many shipments will be made and how much material will be transported?
- 6C. Is this a new package with no shipping experience?

PART 7 SAFETY AND RISK ASSESSMENT

- 7A. 49 CFR § 107.105(d) prescribes requirements for justification of an exemption through comparisons with established levels of safety and risk assessment. Has the applicant demonstrated equivalent levels of safety or provided an appropriate risk analysis?
- 7B. What are the hazards (worst case) posed by the proposed exemptions? What could go wrong? Are the risks significant? What is the degree of uncertainty as to likelihood or consequences?
- 7C. What are the benefits to the public and the applicant of granting the exemption? What trade-offs have been made?
- 7D. Does this exemption (and other similar exemptions) point to the need for possible regulatory changes? If so what other information is needed to support a regulatory change.

Comment [COMMENT4]: [Note: See Attachment 1 for list of hazard sources, Attachment 2 for list of hazardous processes and initiating events, and Attachment 3 for risk factors for materials, articles (devices) and initiation devices for articles]

PART 8 DOCKET COMMENTS/INFORMATION

- 8A. Date checked:
- 8B. Comments: _____ (If Yes, summarize)
- 8C. Has **CONFIDENTIAL** or **PROPRIETARY** information (49 CFR 107.5) been considered in this application?

Comment [COMMENT5]: [Note: Significant exemptions with risk implications should be coordinated with DHM-24]

PART 9 OVERALL EVALUATION & RECOMMENDATION

Provide standard of equivalency and rationale supporting equivalent level of safety or comment on additional requirements needed to establish equivalency. Include main issues, evidence (i.e. tests), and technical conclusions. See note in Part VI concerning confidential information.

Comment [COMMENT6]: [Note: All statements that are based on proprietary or confidential material submitted by the applicant must be contained in brackets and preceded and followed by asterisks - e.g. as is this statement]

Office of Hazardous Materials Technology (OHMT)
Office of Hazardous Materials Exemptions and Approvals (OHMEA)

Office: DHM-

Project Officer/Date:

Reviewer/Date:

Office Director/Date:

Attachment #1

Hazard Sources:

1. Explosives
 - o primary mass detonation
 - o fragmentation
 - o pyrotechnic
 - o propellant/rocket motors
 - o devices/actuators
 - o blasting agents
2. Gases
 - o flammable
 - o compressed (stored energy)
 - o poisonous
 - o oxidizer/reactive
 - o asphyxiation
 - o cryogenic gas (cold)
3. Flammable liquids
4. Flammable solid
 - o wetted explosives
 - o self reactive/strongly exothermal decomposition
 - o readily combustible solid/
 - ignites through friction
 - rapid burning rate
 - many metal powders
 - Spontaneously combustible material
 - o pyrophoric
 - o self heating material/spontaneous ignition
 - o Water reactive materials
5. Oxidizers
 - Organic peroxides
 - Reducers*
6. Poison
 - o chemical (oral, dermal and inhalation routes of ingestion)
 - o infectious substance (oral, dermal and inhalation routes of ingestion)
7. Radioactive materials
 - o direction radiation
 - o oral ingestion

- o inhalation
 - o fissile materials (Pu238, Pu239, Pu241 and U235)
8. Corrosive
- o to human skin
 - o to metal
9. Environmental
- o bio accumulation
 - o not readily bio-degradable
 - o toxic to fish, birds, animals, plants
10. Hot material (elevated temperature material)
Cold material*
11. Electrical current*
- o batteries*
 - o generators*
 - o capacitors*
 - o static charge*
12. Radiation sources*
- o thermal*
 - o electromagnetic/radio sources/micro wave sources*
 - o ionizing/x-ray sources*
 - o high flux magnetic fields*
 - o ultraviolet*
 - o high intensity light (laser)*

* not currently regulated as a hazardous material

Attachment #2

Hazardous Processes and Initiating Events:

1. Acceleration
2. Contamination
3. Corrosion
4. Electrical
 - o shock
 - o thermal
 - o inadvertent activation
 - o power source failure
 - o electromagnetic radiation
6. Explosion
7. Fire
8. Heat and temperature
 - o high temperature
 - o low temperature
 - o temperature variations
9. Leakage
10. Moisture
 - o high humidity
 - o low humidity
11. Oxidation
12. Reduction
13. Decomposition
14. Polymerization
15. Pressure
 - o high pressure
 - o Low pressure
 - o rapid pressure change
16. Mechanical shock
17. Vibration
18. Containment (packaging failure)
 - o leakage
 - o permeation
 - o brittle failure
 - o plastic failure
 - o seal, gaskets
 - o seams, joints
 - o closures, fittings
19. Change of orientation
 - o effect of static head
 - o effect of pad pressure
 - o effect of dynamic surge
20. Chemical compatibility with packaging

Attachment #3

Risk Factors for Materials, Articles (Devices) and Initiation
Devices for Articles:

- o effect of normal transportation environment
- o effect of accident environment
 - fire, excessive heat
 - shock, impact
 - crush
 - electric current
- o effect of release in transport
- o effect of water egress
- o effect of reaction with water

Additional consideration for article with initiation devices

- o does device have two independent means to prevent initiation?
- o consequence if initiated
 - heat produced -- is external temperature above 205C (400F)-- is packaging material combustible
 - electrical current or potential produced
 - gas produced -- flammable, toxic, oxidizer, corrosive? -- retained or released? -- flow rate? pressure?
 - other -- see list of hazard sources