U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

APR 12 2001

Mr. Jack Currie
Currie Associates, Inc.
1118 Bay Road
Lake George, NY 12845-4618

Ref. No. 00-0288

Dear Mr. Currie:

This is in response to your October 12, 2000, letter concerning the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to the material and packaging you describe as a sealed pod containing approximately one gram (0.174 gr to 1.2 gr) of potassium hydroxide, a Class 8, Packing Group II material. You are requesting that we make a determination, under § 173.136(b), that this material is not subject to the HMR or to determine that the risk of this material due to packaging is too small to regulate.

You describe the packaging as consisting of the pod sandwiched between two plastic sheets which are coated with absorbent material which, you state, would not allow any material to escape. The pod is attached to one of the two sheets and is only broken when a customer initiates a mechanical device which breaks the pod. At this point, the material is spread evenly across the sheets where it is absorbed and neutralized. A stack of 8 to 10 of these sheet/pod combinations is stacked in a plastic cartridge, which in turn is then packaged in a hermetically sealed foil envelope. The foil envelope is then packaged in a fiberboard box. You ship approximately 50 to 60 of these packages in one shipping case.

It is the opinion of this Office that the item described above is not a hazardous material and, therefore, is not subject to the HMR. This determination is made in accordance with § 173.136(b).

I hope this satisfies your request,

Sincerely,

Hattie L. Mitchell

for Edward T. Mazzullo
Director, Office of Hazardous
Materials Standards

Johnsen
§ 173.136 (b)
Applicability
00-0288

CURRIE ASSOCIATES, INC.
THE GLOBAL COMPLIANCE PROFESSIONALS

October 12, 2000

Mr. Edward T. Mazzullo
Director, Office of Hazardous Materials Standards
DHM-10
400 Seventh St. S.W.
Washington, DC 20590

Dear Mr. Mazzullo:

On behalf of a client of Currie Associates, Inc. I am requesting regulatory review and determination of applicability of 49 CFR, Part 173, Sub part D, §173.136 (b) in regard to the following described articles.

My client manufactures and distributes several consumer imaging products which differ slightly in their configuration but all of which store a highly viscous fluid in a sealed pod. The sealed pod protects the contents from atmospheric degradation as well as from evaporation until the customer is ready to activate a mechanical device which bursts the pod. The contents of the pod, averaging approximately 1 gram (0.174 gr. to 1.2 gr.) are then spread in a highly controlled manner between two rectangular plastic sheets both of which are coated with absorbent materials. The pod is firmly attached to one of the two rectangular plastic sheets, up to 5 mils thick, before and after it is burst. There are 8 to 10 of these unprocessed plastic sheet "sandwiches" stacked up in a plastic cartridge. Each "sandwich" is mechanically ejected from the cartridge and becomes available to the customer only after the mechanical devise is activated.

The formula for the viscous fluid lists ingredients to include approximately 5% to 10% Potassium Hydroxide (and sometimes lesser amounts of Sodium Hydroxide), and non-regulated components such as 0 to 60% titanium dioxide, 40% to 70% water, and trace amounts of other non-regulated chemicals such as a polymeric thickener. The caustic viscous fluid, if it were shipped by itself as a packaged liquid in commerce rather than as a component within the sandwich as described, meets the defining criteria in §173.137(b) for a corrosive liquid, Class 8, in packing group II, attributable to the Potassium (and/or Sodium) Hydroxide.

The ejection of the sandwich within which the viscous fluid is spread employs two different technologies.

RECYCLED
1118 BAY ROAD • LAKE GEORGE, NEW YORK 12845-4618 • TEL: (518) 761-0668 • FAX: (518) 792-7781
http://www.currieassociates.com Email: currie@netheaven.com

In one configuration the mechanical device which ejects the sandwich from the cartridge is powered by hand. The customer then retains the processed sandwich external to the mechanical devise for a specified period of time, during which time the caustic viscous fluid is being absorbed and neutralized within the sandwich (i.e. inaccessible to the customer). At the end of the specified time, the customer separates the sandwich into two rectangular sheets, one of which is discarded. The sheet which the customer keeps by this time is nearly dry (i.e. the fluid largely has been absorbed) and the remaining fluid on the surface of the coated sheet approaches neutral pH of approximately 7.

In the other configuration, the mechanical devise which ejects the sandwich from the cartridge is operated by a battery-powered motor. Also, the sandwich is never separated by the customer, and thus there is no exposure of any fluid, no matter what the pH, to the customer.

In both technologies there is very little danger of human exposure to the corrosive properties of the caustic viscous fluid involved in the process.

In transportation the unprocessed "sandwiches", with the individual pod firmly attached to each, is packaged within a plastic cartridge which is contained within an hermetically sealed foil envelope, within a cardboard box. The cardboard boxes containing the envelopes containing the cartridges containing the "sandwiches" (to which are permanently affixed the small sealed pods), are packed approximately 50 to 60 per shipping case. Even if the completed packages as offered for transportation were to be severely damaged as the result of an accident, it is highly unlikely that there would be any release of the miniscule quantity of the viscous fluid within each package that would be considered harmful. The multiple levels of packaging, including the inner-most pod, are designed to protect the viscous fluid in the product from release until it is subjected to the applied pressure from the mechanical device which ejects the sandwich from the cartridge.

The product is distributed to and dispensed through all types of retail outlets such as drug and variety stores, specialty stores, and department stores. The technology has been in existence in various forms for several years with no known transportation incident data to support controls over its distribution. In fact, there appears to be less risk of exposure in its transportation than in its intended use. The packaging and the Material Safety Data Sheet (MSDS) display warning statements regarding avoiding eye contact with the caustic (unneutralized) viscous fluid within a pod attached to each sandwich. The developer is not known to meet the definition of any other hazard class or to contain any CERCLA Hazardous Substances or Marine Pollutants.

In communication with my client, I have suggested that obvious similarities are evident in comparing this product with the interpretation issued by your office in January of 1991 regarding towlettes that are presaturated with flammable liquid, with no discernible free liquid in the packaging, and thus do not pose a significant hazard in transportation. In that interpretation you state that the packets are not subject to the hazardous material regulations.

Based upon the above information, and the technical data entered into the MSDS for these types of "sandwiches", it appears that the hazardous characteristics presented by these products in transportation afford less opportunity for human or environmental exposure that those presented through the recommended use of the product by the consumer. The provisions of §173.136(b) seem to address the scenario at issue, since human experience and the data provided regarding the minute quantities present in the sealed pods support the indication that the hazard of this material is less than the elements set out in §173.136(a). We are therefore requesting that RSPA make a determination that these products are not subject to the requirements of 49 CFR, Subchapter C.

Please do not hesitate to contact me if additional date are required to assist you in assessing the applicability of the regulations in 49 CFR to the subject products in question. Thank you for your prompt consideration of this matter as commercial distribution may be impeded in the interim.

Sincerely,

John V. Currie
President

10/13/00

Johnsen

CURRIE ASSOCIATES, INC.

THE GLOBAL COMPLIANCE PROFESSIONALS

October 12, 2000

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Director, Office of Hazardous Materials Standards
DHM-10
400 Seventh St. S.W.
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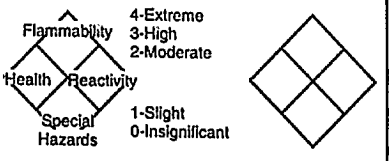
Sincerely,

John V. Currie
President

MATERIAL SAFETY DATA SHEET

POLAROID CORPORATION
OFFICE OF HEALTH, SAFETY, & ENVIRONMENTAL AFFAIRS
1265 MAIN STREET - WALTHAM, MA 02254
(781) 386-0879

Data Sheet No. **M-0628**	Revision **VIII**	**NFPA FIRE HAZARD SYMBOL**
		
Compiled by: **E. Karger**	Issue Date: **08-JUN-1998**	

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

COMMON NAMES: DEVELOPER FLUID CONTAINED IN POD OF FILM TYPES 708, 778, 779, 339, 600++, 309, 909, 600+, SPECTRA, IMAGE, 6000, 7000, TIME ZERO, 330, 990, CAPTIVA 95, VISION 95, JOYCAM 95, POCKET FILM, PLATINUM, EXTREME GLOSS FILM; ALTER IMAGE, MATTE,; MAT-T-E

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL FAMILY: MIXTURE

INGREDIENTS

Please note that chemicals present in the mixture in concentrations below 1% which are considered not to be a hazard may not be included in the list of ingredients

Material	%	MSDS#	CAS#	PL# /Comments
POTASSIUM HYDROXIDE	5-10		001310-58-3	
2-METHYLIMIDAZOLE	0.10-1		000693-98-1	
TITANIUM DIOXIDE	30-60		013463-67-7	
CARBOXYLATED STYRENE/BUTADIENE COPOLYMER	1-5		009003-55-8	
P-TOLUENESULFINIC ACID, SODIUM SALT-HYDRATE	0.10-1		000824-79-3	
2-ETHYLIMIDAZOLE	1-5		001072-62-4	

INGREDIENTS (CONT.)

Material	%	MSDS#	CAS#	PL# /Comments
6-METHYLURACIL	0.10-1		000626-48-2	
WATER	40-70		007732-18-5	

SECTION III - HAZARDS IDENTIFICATION

Hazard Signal Word

WARNING

Hazards

CONTAINS ALKALI
Eye Contact May Cause Permanent Eye Damage.
Skin and Mouth Contact May Cause Irritation or Burns.

Precautionary Measures

Do not get in eyes, on skin, mouth or clothing.
Wash thoroughly after handling

INGREDIENT EXPOSURE LIMITS

POTASSIUM HYDROXIDE

OSHA Permissible Exposure Limit:	PEL/TWA	2	mg/m3	(ceiling)	
ACGIH	TLV/TWA	2	mg/m3	(ceiling)	

TITANIUM DIOXIDE

OSHA Permissible Exposure Limit:	PEL/TWA	10	mg/m3	(total dust)	5 mg/m3 (respirable fraction)
ACGIH	TLV/TWA	10	mg/m3		

P-TOLUENESULFINIC ACID, SODIUM SALT-HYDRATE

OSHA Permissible Exposure Limit:	PEL/TWA	None established
ACGIH	TLV/TWA	Not listed

2-ETHYLIMIDAZOLE

OSHA Permissible Exposure Limit:	PEL/TWA	None established
ACGIH	TLV/TWA	Not listed

6-METHYLURACIL

OSHA Permissible Exposure Limit:	PEL/TWA	None established
ACGIH	TLV/TWA	Not listed

SECTION IV - FIRST AID MEASURES

EYE CONTACT:
In case of eye contact, immediately flush eyes with plenty of water for at least fifteen minutes. Remove contact lenses if worn. Seek Medical attention immediately.

SKIN CONTACT:
In case of skin contact, flush affected area with plenty of water.

ORAL CONTACT:
In case of oral contact rinse mouth immediately with plenty of water. Drink water or citrus juices to dilute or neutralize any alkali that may have been swallowed. Do NOT induce vomiting. Seek Medical attention immediately.

INGESTION:
Get Medical attention immediately. If swallowed, do NOT induce vomiting unless directed to do so by Medical personnel. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN
Prolonged contact with skin may produce alkali burns.

SECTION V - FIRE FIGHTING MEASURES

Flash Point: (Tag Closed Cup): Mixture will not burn.

SECTION VI - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Handle film so as not to break developer pods prior to film development.
Small quantities of developer fluid may be wiped up with a damp paper towel using care to avoid any skin or eye contact.

SECTION VII - HANDLING AND STORAGE

Not Available

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

RECOMMENDED VENTILATION:
Not normally required.

RESPIRATORY PROTECTION:
Not normally required.

EYE PROTECTION:
Not normally required.

SKIN PROTECTION:
Not normally required.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Cream, white, tan, grey or pink viscous fluid
Melting Point:	ND
Boiling Point:	@ 760 mm Hg: 100 °C (212°F) (Water)
Specific Gravity(H2O=1):	1.1
% Solubility in Water:	@ 20°C: dilutable
Vapor Density (AIR=1):	ND
% Volatiles by volume:	85 (approximate)
Vapor Pressure:	ND
Evaporation Rate:	(BUTYL ACETATE=1): <1
pH:	> 13 - Drops rapidly after processing
Pour Point:	ND
Softening Point:	ND
Viscosity:	ND
Bulk Density:	ND
Surface Tension:	ND
Log Kow:	ND

SECTION X - STABILITY AND REACTIVITY

Hazardous Reactivity:
Mixture is considered stable.

SECTION XI - TOXICOLOGICAL INFORMATION

INHALATION:
May be an irritant

SKIN CONTACT:
Corrosive

EYE:
Corrosive

INGESTION:
Corrosive

Effects of Acute Overexposure:
Eye contact with developer may cause permanent eye damage. May cause burns to skin and mouth.

Effects of Chronic Overexposure:
None currently known.

SECTION XII - ECOLOGICAL INFORMATION

Not Available

SECTION XIII - DISPOSAL CONSIDERATIONS

Product (film pack, picture) is not classified or regulated under U.S. federal law as "RCRA Hazardous" before or after processing.

SECTION XIV - TRANSPORT INFORMATION

OTHER D.O.T. INFORMATION

Film product not regulated

SECTION XV - REGULATORY INFORMATION

All ingredients are listed on the TSCA inventory
This product has been classified in accordance with the hazard criteria of the Canadian Controlled Product Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION XVI - OTHER INFORMATION

NOTE: Film conforms to ASTM D-4236
All ingredients are listed on the TSCA inventory

Revision Information

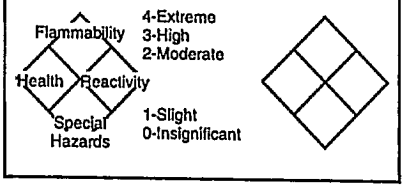
Revised Sections Since Last Version:

Section XV - Regulatory Information

REVISION DATE: 08-JUN-1998 REPLACES SHEET DATED: 11-MAY-1998
COMPLETED BY: Polaroid Corp. Office of Health, Safety, & Environmental Affairs

Data Sheet No. **M-0628**	Revision **VIII**	**NFPA FIRE HAZARD SYMBOL**

Drum Label Information



HAZARD SIGNAL WORD

WARNING

HAZARDS

CONTAINS ALKALI
Eye Contact May Cause Permanent Eye Damage.
Skin and Mouth Contact May Cause Irritation or Burns.

PRECAUTIONARY MEASURES

Do not get in eyes, on skin, mouth or clothing.
Wash thoroughly after handling

EMERGENCY AND FIRST AID PROCEDURES

In case of eye contact, immediately flush eyes with plenty of water for at least fifteen minutes. Remove contact lenses if worn. Seek Medical attention immediately.

In case of skin contact, flush affected area with plenty of water.

In case of oral contact rinse mouth immediately with plenty of water. Drink water or citrus juices to dilute or neutralize any alkali that may have been swallowed. Do NOT induce vomiting. Seek Medical attention immediately.

Get Medical attention immediately. If swallowed, do NOT induce vomiting unless directed to do so by Medical personnel. Never give anything by mouth to an unconscious person.

SPILL CONTROL:

Handle film so as not to break developer pods prior to film development.
Small quantities of developer fluid may be wiped up with a damp paper towel using care to avoid any skin or eye contact.

OTHER D.O.T. INFORMATION

Film product not regulated

U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

JAN 23 2001

Mr. Lawrence W. Bierlein
2175 K Street, NW
Washington, DC 20037

Dear Mr. Bierlein:

On September 1, 2000, on behalf of Hewlett-Packard Company, you applied for an approval to ship certain inkjet cartridges as unregulated materials. This is in response to your subsequent letter of January 5, 2001, enclosing results of certain steel corrosion tests and a comparative chart on steel compositions.

We have reviewed that test data and chart, and conclude that the K02400 steel tested is sufficiently "similar to" P3 and P235 steels, as that term is used in the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) and the United Nations Model Regulations on the Transport of Dangerous Goods, to be accepted for Class 8 classification purposes. We also conclude, based upon the 14-day test results you provided, that the ink in the Hewlett-Packard inkjet printer cartridges does not meet the definition of a corrosive material as set forth in 49 CFR §§ 173.136 and 173.137, and in international regulations based upon Chapter 2.8 of the UN Model Regulations on the Transport of Dangerous Goods.

Accordingly, because the ink is not regulated as a hazardous material, the approval you originally requested is not necessary.

Sincerely,

Edward T. Mazzullo

Edward T. Mazzullo, Director
Office of Hazardous Materials Standards