U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

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

JUL 2 5 2016

Mr. Robert Richard
Vice President, Regulatory and Government Services
Labelmaster Services
5724 N. Pulaski Road
Chicago, IL 60646

Reference No.: 15-0144

Dear Mr. Richard:

This is in response to your July 10, 2015 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) regarding the shipment of hazardous materials packages that have minor damage. You enclose several photographs showing examples of fiberboard boxes that have minor damage, including abrasions, small holes, creases, or tears in the wall board. You state that, in most cases, the damage is not significant and would not compromise the packaging's ability to pass applicable design qualification tests or to provide containment under normal conditions in transportation.

You also state that airlines and freight forwarders are rejecting shipments of hazardous materials packages that have minor damage in part because the HMR do not define the wording, "damaged package", making the determination of a damaged package subjective. In addition, you state that the provisions of § 175.30(c)(1) effectively prohibit a hazardous material to be carried aboard aircraft if the packaging has holes, leakage or other indication that its integrity has been compromised and that the International Civil Aviation Organization Technical Instructions for the Transport of Dangerous Goods (Chapter 7, 1.3.1(i)) do not include a reference to "holes." Your letter seeks more detailed guidance about what constitutes the point at which the "integrity" of a package is compromised such that it should not continue in transportation in accordance with § 175.30(c)(1).

Whether there is a "hole," a "leak," or some "other indication" concerning the potential compromise of its integrity, the inspection requirement in § 175.30(c)(1) is clearly focused on preventing the continued transportation of such a package, and the responsibility is one that the HMR squarely places on the carrier.

A "leaking" package is an unmistakable sign that the integrity of a package is compromised, so that the actual condition should always cause the carrier to prevent a package's further movement in transportation. On the other hand, a "hole" may or may not evince a

compromise in a package's integrity. This means that there may be occasions when a carrier determines that a "hole" does not evidence the compromise of a package's integrity despite what is otherwise a clearly observable sign of a potential problem. This discretion is one that the regulations place upon the carrier to ascertain during its inspection of the package.

It is the shipper's responsibility to ensure that a hazardous material is offered in accordance with the applicable requirements of the HMR, including determining that the packaging or container is an authorized packaging and that it has been manufactured, assembled and marked as appropriate. See § 173.22. General packaging requirements are prescribed in §§ 173.24, 173.24a, and 173.24b, as well as 173.27 if transported by air. If the package meets a DOT specification or UN standard, it must also satisfy the applicable performance requirements for these packagings.

A hazardous materials packaging or package that is damaged during transportation which results in exposure to environmental elements, or sudden inner packaging expansion may be sufficiently reduced in effectiveness to no longer meet the HMR's general packaging requirements. Such damage increases the possibility that the package may release the hazardous materials or other substances or articles it contains. Therefore, packages containing hazardous material that are impaired in a manner that indicates their internal packagings may be crushed or considerably damaged should be considered significantly reduced in structural integrity such that they are unable to protect the materials they contain or carry loads imposed upon them, which can result in an unsafe shipping environment. This should be evaluated by the carrier on an individual per package basis.

Your questions concerning the repair of damaged packages are paraphrased and answered as follows:

Q1. Can a fiberboard box that has been opened be closed with adhesive tape as long as it affords equal or greater strength as compared to the adhesive tape identified in the closure instructions?

A1. In accordance with § 173.24(f)(1), closures on packagings shall be so designed and closed that under conditions (including the effects of temperature and vibration) normally incident to transportation there is no identifiable release of hazardous materials to the environment from the opening to which the closure is applied, and the closure is secure and leakproof. Closures (including gaskets or other closure components, if any) used on a specification packaging must conform to all applicable requirements of the specification. See § 173.24(f)(2). In accordance with § 178.2(c), a packaging manufacturer and each subsequent distributor of a UN packaging must provide written instructions to customers of all regulatory requirements not met at time of transfer, such as instructions on how to properly assemble and close a packaging (e.g., UN 4G fiberboard box). Therefore, the tape used to reclose a specification package that has been opened must be the type specified in the

closing instructions. Note that, like with all functions that are subject to the HMR, the person, as defined in § 171.8, who recloses a package assumes the responsibility for doing so correctly.

Q2. Can minor rips, tears and pinholes be repaired by placing clear adhesive tape over the minor damage as long as this practice does not compromise the packaging's ability to pass the applicable design qualification tests or to provide appropriate containment of the hazardous materials under normal conditions of transportation?

A2. Except as provided in § 178.601(g), any change to an originally produced packaging in structural design, size, material of construction, wall thickness or manner of construction would result in a different packaging design type and requires qualification testing. Minor repairs to the package may be acceptable provided the completed package meets the requirements of §§ 173.24, 173.24a, and 173.24b, as well as 173.27 if transported by air, but only to the extent that the carrier's actions are in accordance with its acceptance and inspection responsibilities under § 175.30. If the package meets a DOT specification or UN standard, it must also satisfy the applicable performance requirements.

Q3. If a metal drum has a minor dent that does not compromise its integrity, should an airline reject it for shipment?

A3. In accordance with § 175.30(c)(1), a carrier may accept packages with minor dents or scratches if the integrity of the package is not compromised. This also means that a carrier must refuse to accept a shipment of hazardous material when its integrity has, in fact, been compromised or when the carrier cannot effectively rule out that the package's integrity has not been compromised by the dent. Finally, a carrier may refuse to accept a shipment of hazardous material that has indications that the package's integrity has been compromised.

In addition, a carrier may establish internal policies and practices for accepting hazardous materials for transportation.

I hope this satisfies your inquiries. Please feel free to contact us if you need further assistance.

Sincerely,

Duane A. Pfund

Duane A. Pfund
International Standards Coordinator
Standards and Rulemaking Division

Antonielli
175.30
Inspecting Shipments
15-0144

Goodall, Shante CTR (PHMSA)

From: Betts, Charles (PHMSA)
Sent: Friday, July 10, 2015 7:04 AM
To: Hazmat Interps
Subject: FW: Request for letter of interpretation
Attachments: Request for LOI Rev3.docx

Please log and assign to a specialist for response.

From: Bob Richard [mailto:BRICHARD@labelmaster.com]
Sent: Friday, July 10, 2015 6:40 AM
To: Betts, Charles (PHMSA)
Subject: Request for letter of interpretation

Charles,

Please accept the attached letter requesting and interpretation related to minor package damage. Please have a staff member send me a confirmation that the letter has ben officially logged and assigned for processing.

BOB RICHARD
Vice President Regulatory and Government Services
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Keeping companies ahead of the dynamic and frequent changes to hazardous materials regulations.

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July 10, 2015

Charles Betts, Director Standards and Rulemaking Division
Pipeline and Hazardous Materials Safety Administration
Attn: Standards and Rulemaking Division, PHH-10
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
East Building, Floor 2
Washington, DC 20590-0001

Subject: Request for Interpretation Minor Packaging Damage

Dear Mr. Betts:

I am writing on behalf of a client that is a shipper of hazardous materials. The client is a distributor of hazardous materials articles that present minimal risk in transportation. Some of the articles the client receives from its suppliers arrive in packages that have minor abrasions, tears, dents, cuts, small holes or other minor damage that result from normal conditions of transportation and handling. Additionally, packages may experience minor damage during handling and storage operations within the client's warehouses.

The client reships these hazmat articles and has been forced to repackage a significant number (at great expense) prior to reshipment due to extremely conservative determinations on the part of some air carriers and DOT personnel. In the majority of instances, the damage is not significant and would not compromise the packaging's ability to pass applicable design qualification tests or to provide appropriate containment under normal conditions of transportation. The client has experienced differing interpretations regarding minor packaging damage from carriers, DOT personnel and enforcement officers and seeks specific guidance.

The Hazardous Materials Regulations (HMR) do not include a definition of "damaged package". The client and many hazardous materials shippers are experiencing rejections of packages with minor damage because of a lack of criteria in the HMR and because the determination is somewhat subjective. Additionally, the wording in §175.30 has resulted in unjustified rejections from airlines and freight forwarders. §175.30(c)(1) states that hazardous material may be carried aboard aircraft only if the packaging:

"(1) Has no holes, leakage or other indication that its integrity has been compromised...."

A small hole does not necessarily result in a compromise to the packaging's integrity.

Repackaging costs for packages with only small holes/minor damage are significant and the amount of packaging material that needs to be used is inconsistent with the client's environmental initiatives. The client wishes to implement practical and reasonable criteria for determining when repackaging is necessary and to revise employee guidance and training accordingly.

I am attaching photos (Appendix A) of packages that have minor damage and ask your guidance on whether the packages meet the criteria of 175.30(c)(1). These photos were shared with PHMSA and FAA staff that attended a Council on Safe Transportation of Hazardous Articles (COSTHA) Packaging Roundtable Meeting on June 8, 2015 in Washington, DC. The general opinion of DOT staff was that the minor dents, tears, small holes, abrasion and other minor damage would not compromise the integrity of the packages shown in the photos.

I am also requesting guidance on whether minor abrasion, tears or small holes can be repaired as long as the repair does not compromise the packaging's ability to pass the applicable design qualification tests or to provide appropriate containment of the hazardous materials under normal conditions of transportation. Specifically:

Can a fiberboard box that has been opened be closed with adhesive tape as long as it affords equal or greater strength as compared to the adhesive tape identified in the closure instructions?

Can minor rips, tears and pinholes be repaired by placing clear adhesive tape over the minor damage as long as this practice does not compromise the packaging's ability to pass the applicable design qualification tests or to provide appropriate containment of the hazardous materials under normal conditions of transportation?

If a metal drum has a small dent that does not compromise its integrity should an airline reject it for shipment?

Please be advised that we are also considering submitting a petition for rulemaking on behalf of several clients to revise the wording of 40 CFR 175.30(c)(1) as follows:

"(1) Has no ***substantial damage***, leakage or other indication that its integrity has been compromised…"

The comparable text in 7;1.3.1(i) of the ICAO TI does not mention holes. The ICAO text simply states that the packaging is not leaking and there is no indication that its integrity has been compromised. PHMSA should consider revising the text in §175.30(c)(1) to remove references to holes.

Please let me know your response at your earliest possible convenience so that my client can implement appropriate packaging inspection and compliance procedures to ensure the safe transportation of their hazardous materials.

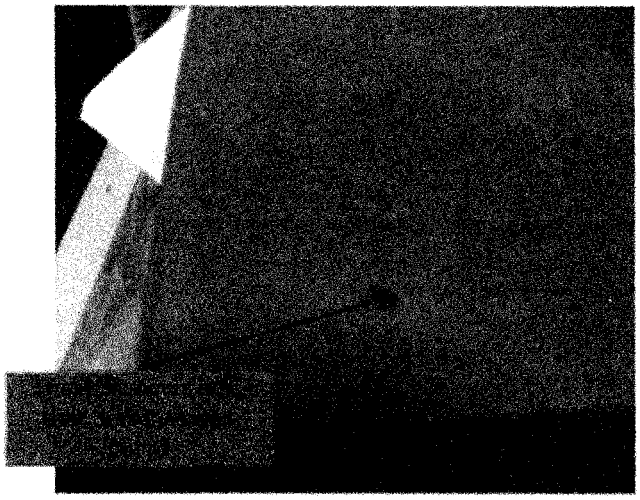
Respectfully,

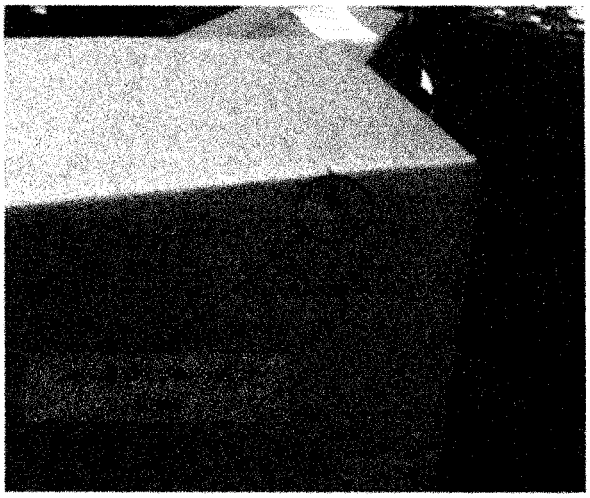
Robert A Richard

Robert Richard
Vice President Labelmaster Services

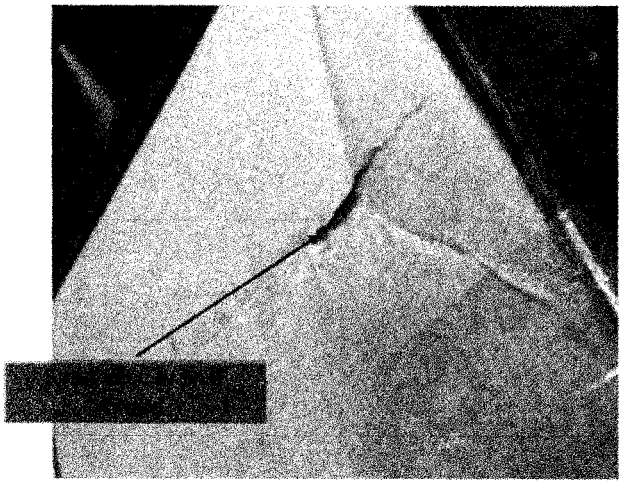
Appendix A

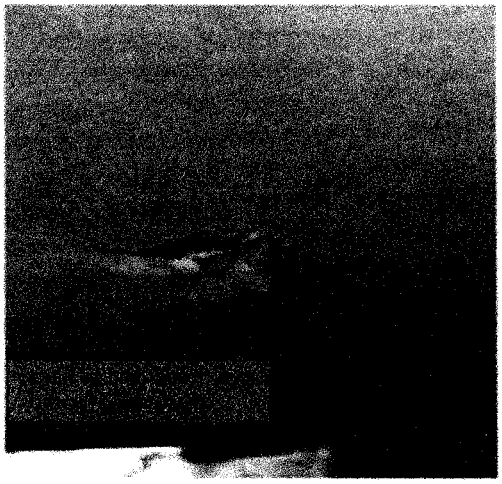
UN3164, class 2 Packaging



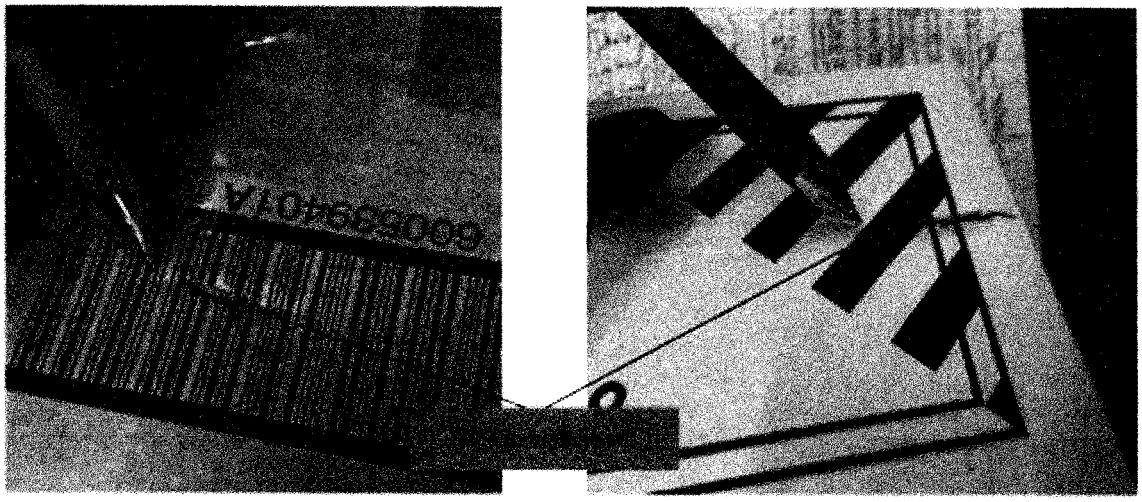


UN3164, class 2 Packaging

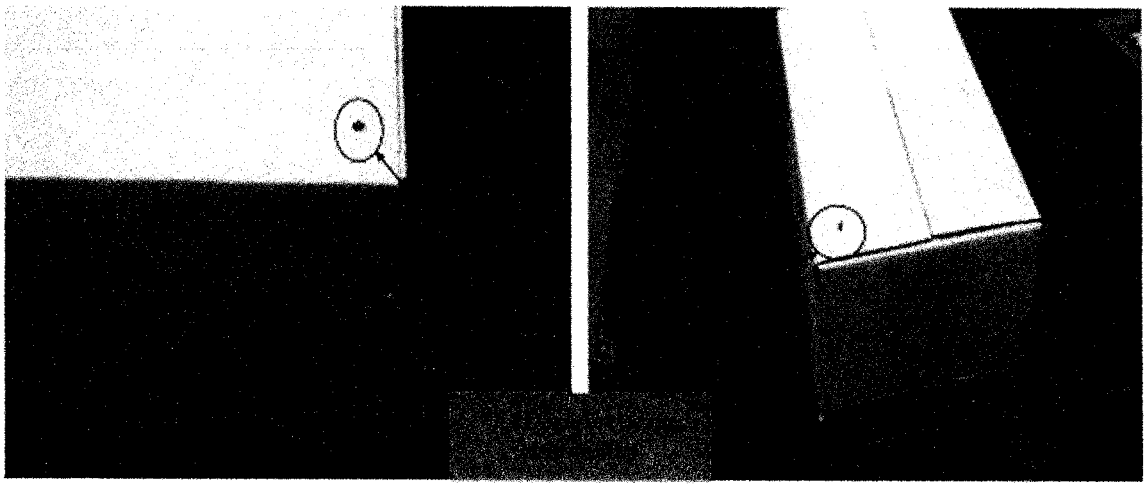




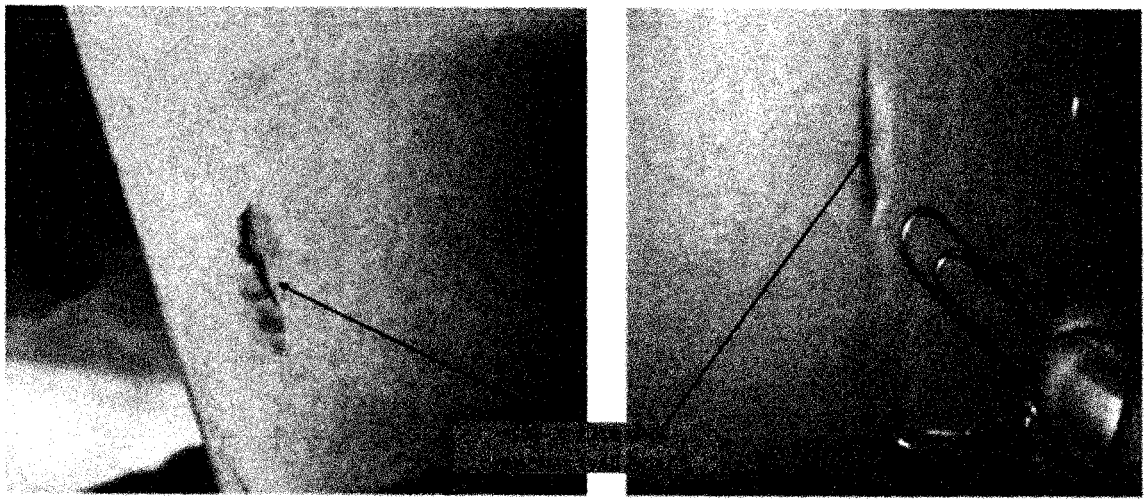
UN3268, Class 9 UN Packaging



UN3268, Class 9 UN Packaging



UN3268, Class 9 UN Packaging



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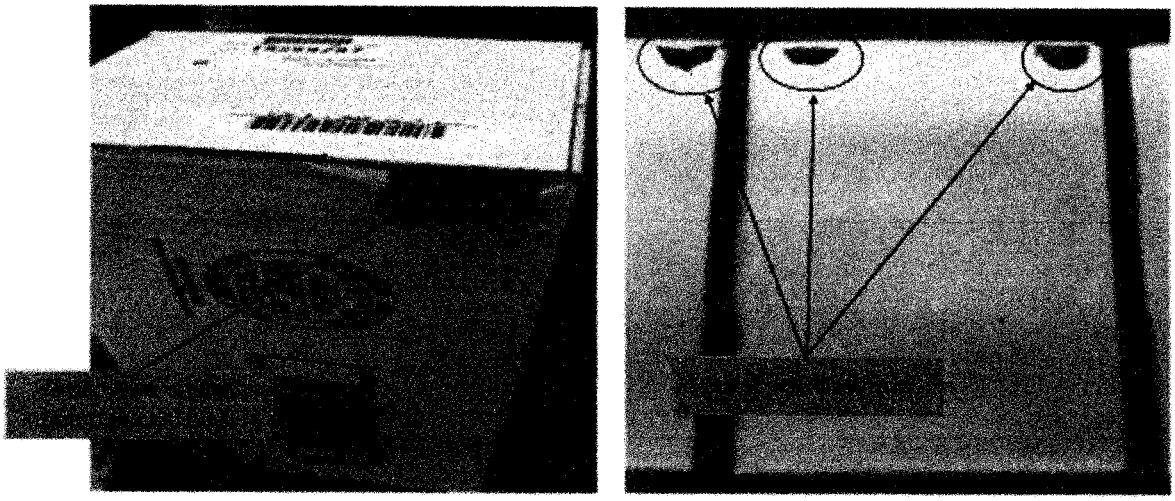

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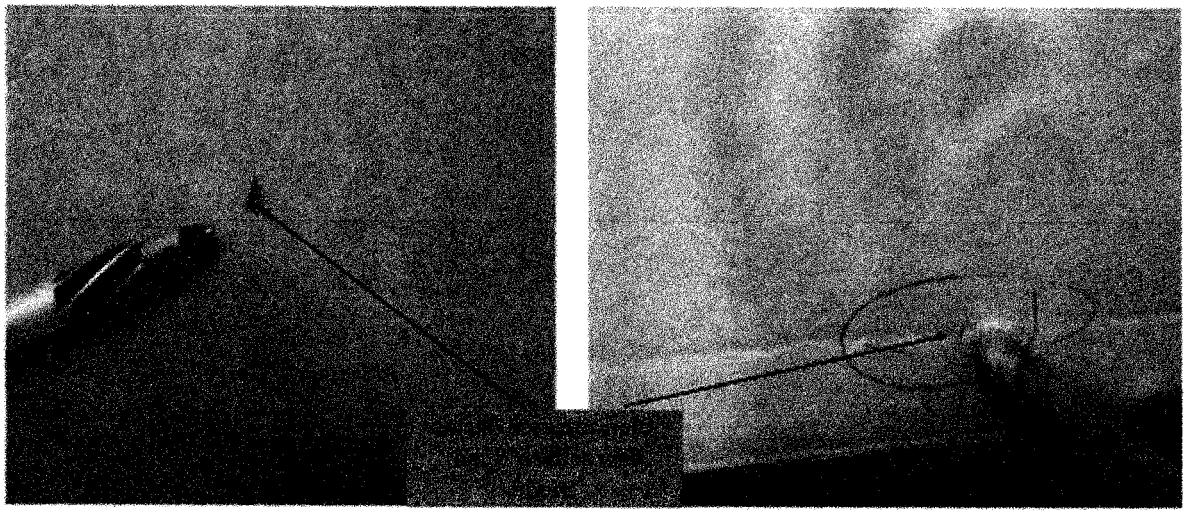
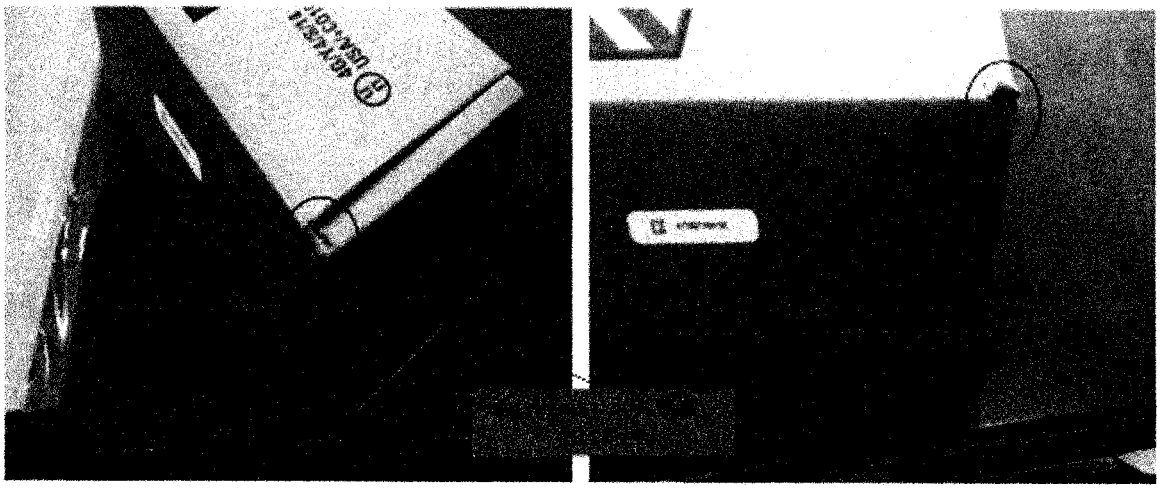
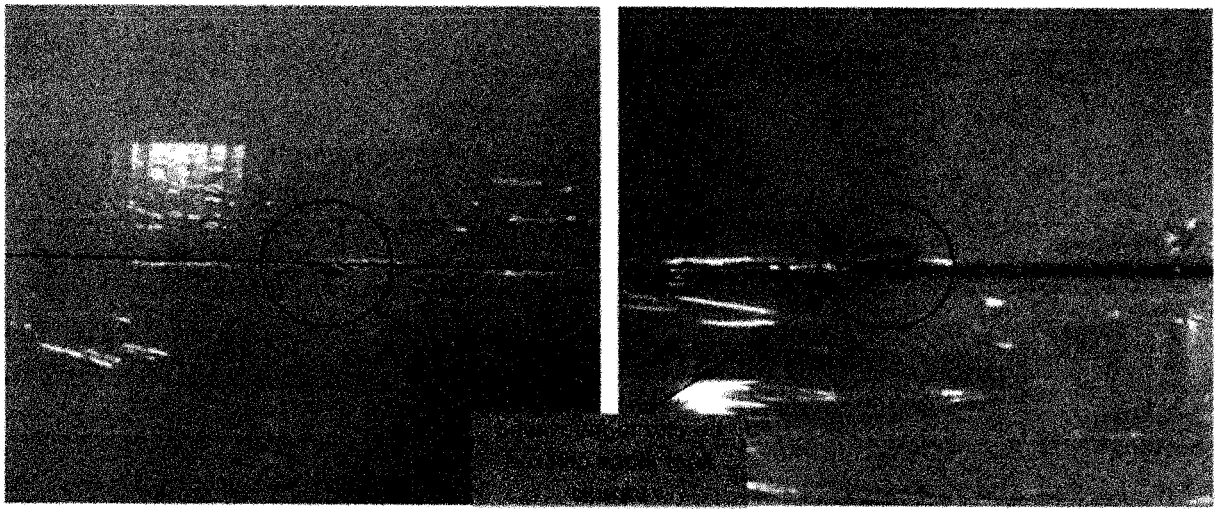


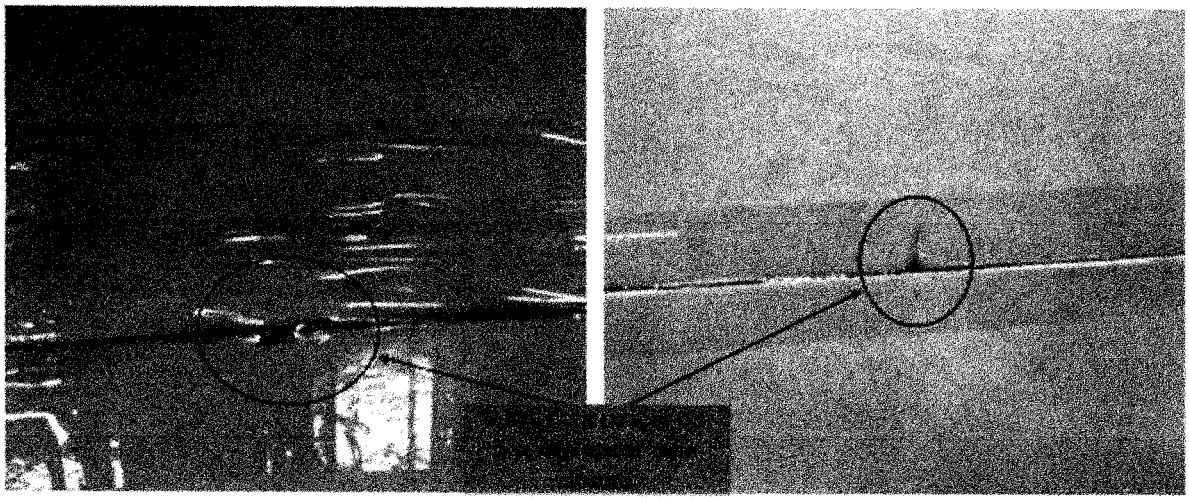
UN3268, Class 9 UN Packaging



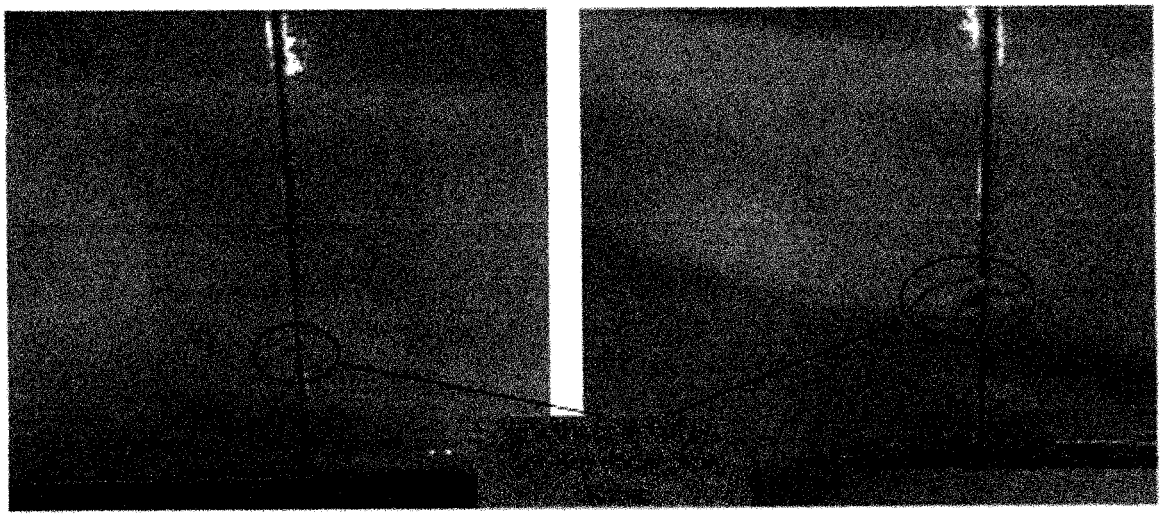
UN3268, Class 9 UN Packaging



UN3268, Class 9 UN Packaging



UN3268, Class 9 UN Packaging



UN3164, class 2 Packaging