



**U.S. Immigration  
and Customs  
Enforcement**

— MAY 06 2010

MEMORANDUM FOR: All Law Enforcement Officers

FROM:

Robert W. Weber  
Deputy Director, Office of Investigations

A handwritten signature in black ink, appearing to read "Robert W. Weber".

SUBJECT:

**OFFICER SAFETY ALERT –  
COUNTERFEIT LITHIUM BATTERIES**

This alert is being issued by the National Intellectual Property Rights Coordination Center (IPR Center) to warn against the potential hazards of using counterfeit lithium batteries. The IPR Center developed this alert to educate officers on the risks associated with counterfeit batteries, and to deliver key warning signs of counterfeits.


Counterfeit lithium batteries often do not have the proper ventilating systems, causing the heat emitted from the battery to become trapped and volatile, making the batteries combustible and dangerous, as evidenced by recent reports to the IPR Center. For example, a police officer in Arizona suffered a severe eye injury due to counterfeit lithium batteries exploding in his flashlight, causing pieces of the flashlight to turn into shrapnel and strike the officer in the face and eye. In August 2009, a U.S. Marshal unsuspectingly placed a counterfeit lithium battery in the flashlight attached to his firearm. While driving his vehicle, the counterfeit battery in the light exploded, setting the U.S. Marshal's clothing on fire. After the fire was extinguished, the second lithium battery in the light exploded, causing a second burst of flames. Luckily, the U.S. Marshal was not seriously injured, although his firearm was no longer serviceable.

The above incidents are alarming, but not entirely uncommon. There are many reports of counterfeit batteries causing explosions in truck and plane compartments during shipping. The U.S. Marshal was also not the first law enforcement official to be placed in a dangerous situation after unwittingly using counterfeit batteries in his issued equipment.

There are many legitimate manufacturers of lithium batteries, and their websites often provide guidance on how to properly handle and store their product. Listed below are a series of indicators for law enforcement to use in examining lithium batteries to determine if they are real or counterfeit. Although the below indicators were provided by Surefire, a popular brand within the law enforcement community, many of the indicators can be applied to other brands of lithium batteries.

Indicators:

A new, **legitimate** CR 123A lithium battery is indicated by the following characteristics that are readily visible (photos attached).

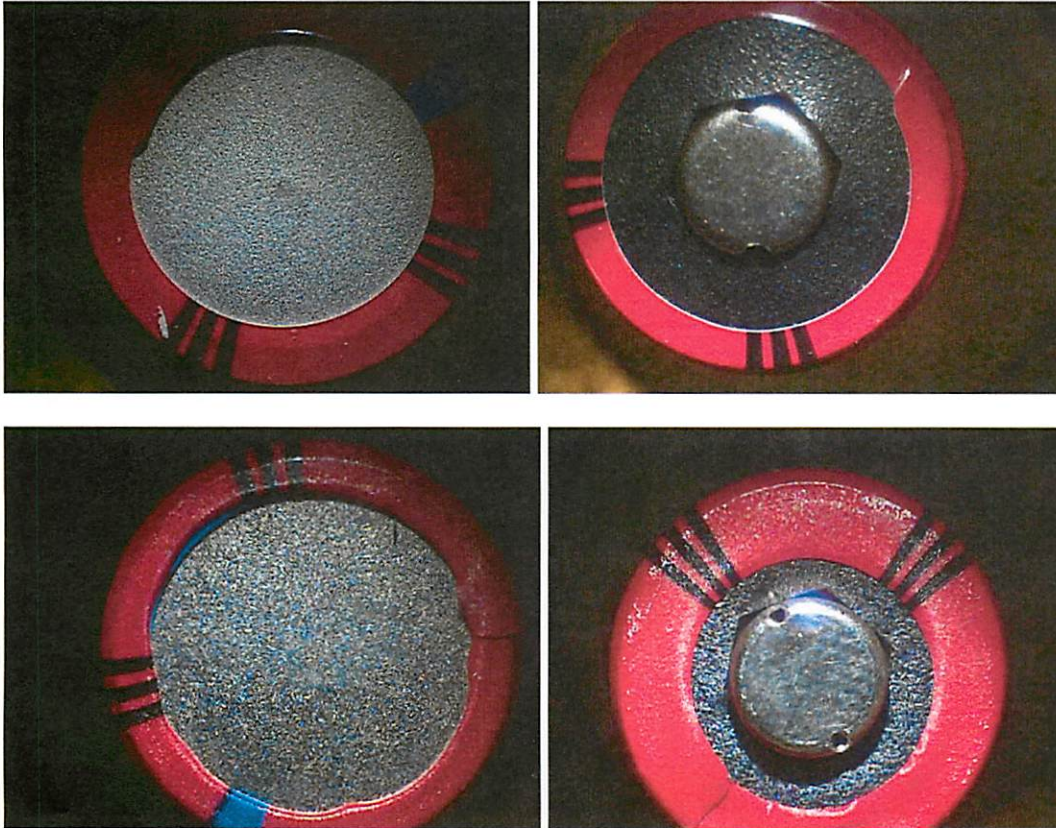
- No spelling mistakes on the product.
- Outside wrapper is plastic (counterfeit batteries often have metal foil wrappers).
- A spacer ring is installed on the bottom of the battery, under the wrapper overlap. A spacer ring is green in color.
- Outside wrapper overlaps have consistent radii on both ends of the battery, as compared to known legitimate cells.
- Vent holes on the positive anode are consistent with known legitimate batteries made by the respective manufacturer.
- The European Union (EU) “crossed out dust bin” () signage; there’s an “EU” above the trash can on all batteries manufactured after October of 2009.
- An expiration date (month and year) based on a ten year shelf life is indicated on the battery, e.g. “10-2018”= manufacture date of October 2008. Do not use batteries/cells that do not have the expiration date or country/origin of manufacture stamped on them.
- Inspection of batteries, while in use, should not reveal any bulging/swelling or elongation of the shape of the battery.

Storage/ Handling of **Legitimate** Lithium Batteries

- Do not place loose batteries in a pocket, purse, or other container containing metal objects, mix with used or other battery types, or store with hazardous or combustible materials. Store in cool, dry, ventilated area.
- Always replace all the batteries being used in one device/piece of equipment at the same time. Never mix batteries with different depletion levels (fresh with used or new with used). Although this improper battery configuration may cause overheating, it should not cause a legitimate battery to fail.

## PRC SureFire Counterfeit SF123A Primary

### SureFire Original



### PRC Counterfeit

1. Surface appearance of metal not same.
2. Anode configuration not same, through holes are in different locations and are different sizes.
3. Outer insulation overlap dissimilar in size and location.
4. Outer insulation edge overlap(top & bottom) opposite configuration of original.
5. Graphics (lines) incorrect width and spacing.
6. Blue graphic only bordered on one side by black, original has black on both sides of blue edge.
7. Overlap joint/seam is wavy and cut straight on top, original joint straight edge and angled on top.





18300 Mt. Baldy Circle  
Fountain Valley, CA

## PRC SureFire Counterfeit SF123A Primary

### SureFire Original



### PRC Counterfeit

1. Reflectance of the material more iridescent
2. "SF 123A" in different position
3. Seam is not consistent with original, overlap noticeable.
4. Font and curving dissimilar.



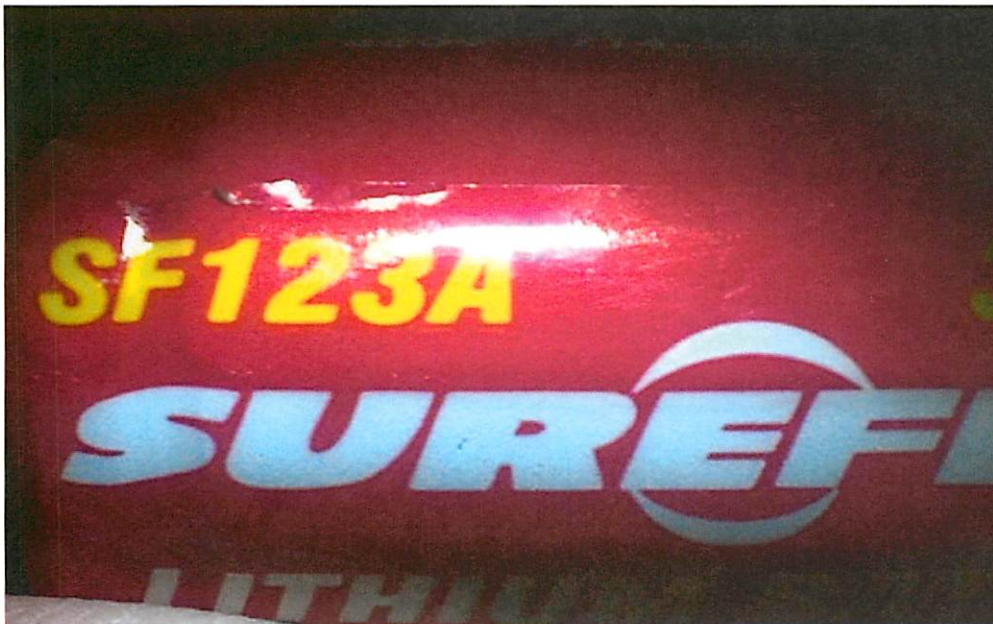
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## PRC SureFire Counterfeit SF123A Primary



SureFire Original

Edges of the characters are not deckled. Graphic circle radii incorrect, terminations at "E" & "F" wrong, positions invade character bodies at bottom of "E" / "F" and right top of "F". Font and spacing of "R", "E", and "F" dissimilar. Radii of the "U" dissimilar, finger spacing of the "E" & "F" not straight, have been hand cut.



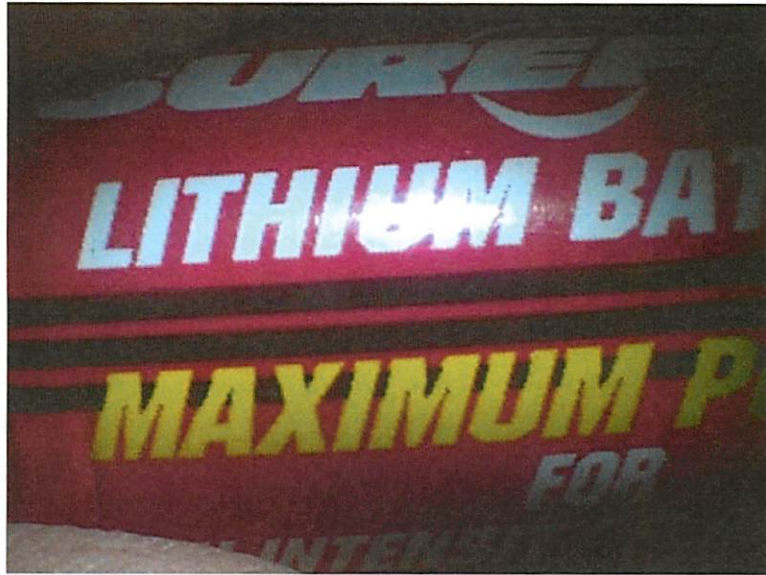
PRC Counterfeit





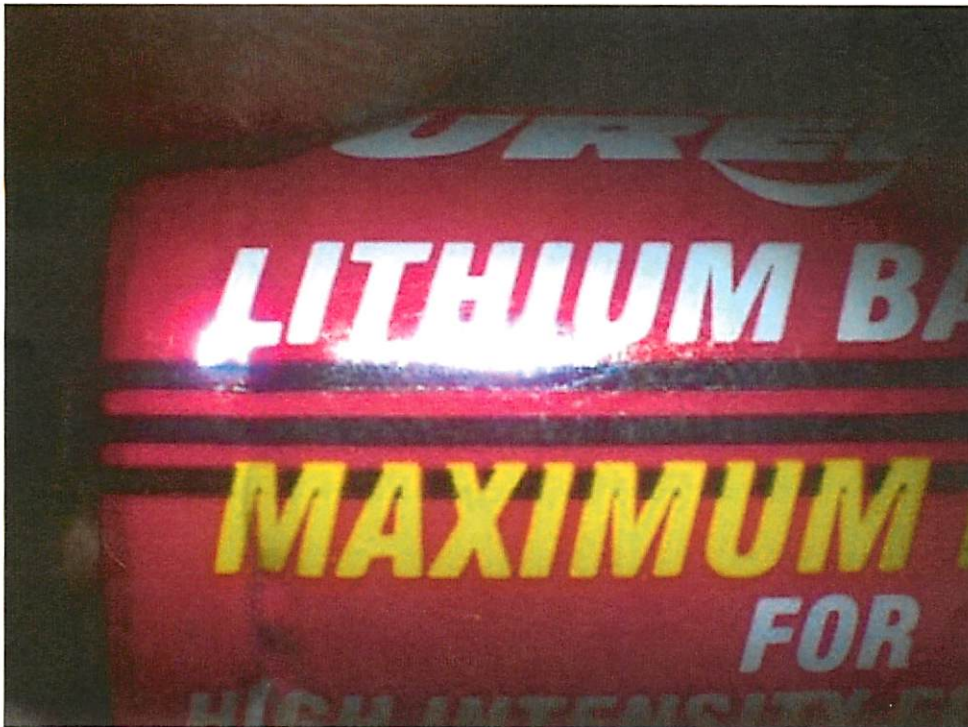
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## PRC SureFire Counterfeit SF123A Primary



SureFire Original

Font and word positions as opposed to the graphic stripes are not correct (U). Stripe width and spacing further apart.



PRC Counterfeit



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## PRC SureFire Counterfeit SF123A Primary



Original SureFire

Dissimilar fonts



PRC Counterfeit





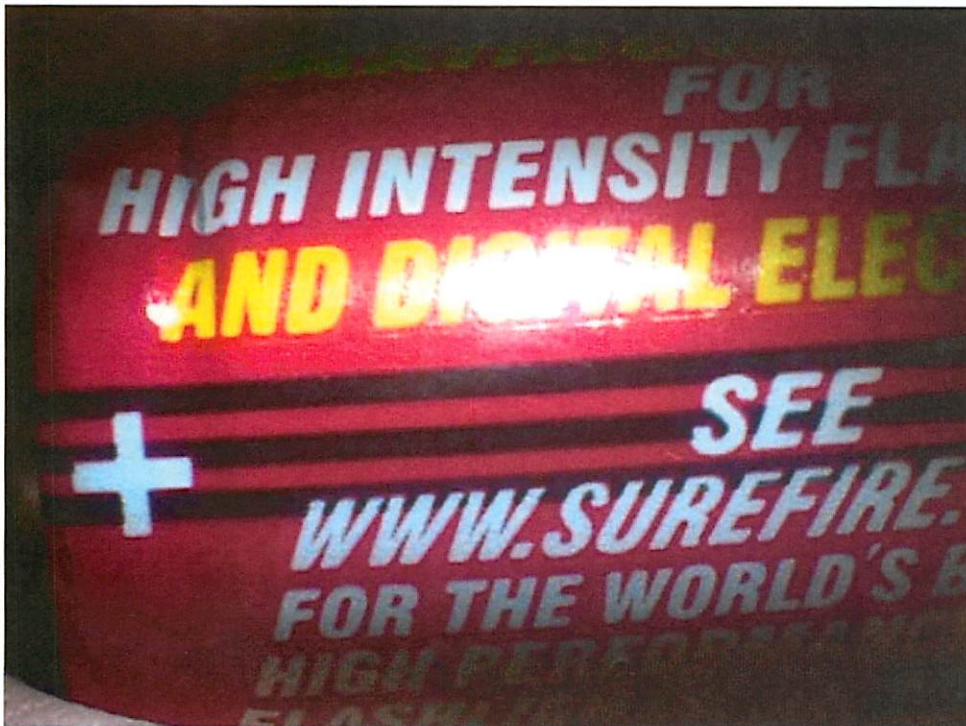
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## PRC SureFire Counterfeit SF123A Primary



Surefire Original

Dissimilar font, "+" sign, web site and "SEE" size and placement.



PRC Counterfeit





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## PRC SureFire Counterfeit SF123A Primary



### SureFire Original

“California” misspelled “Colifornia”, missing date stamp.

Overlap seam is not in correct position 180° out of position.

“Used” joins the “( 100 C)”.



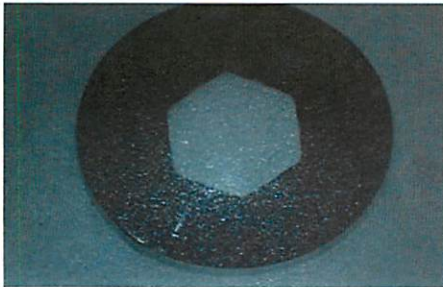
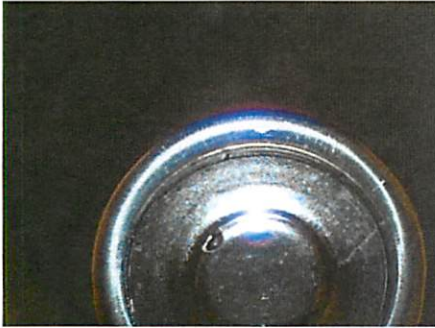
### PRC Counterfeit



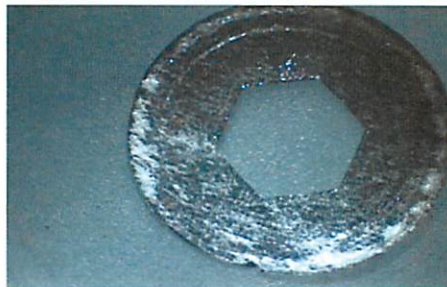
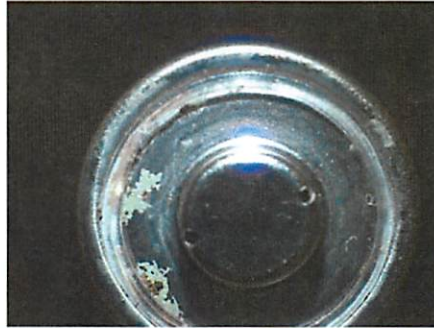
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## PRC SureFire Counterfeit SF123A Primary

### SureFire Original



### PRC Counterfeit



#### Configuration/construction dissimilarities:

1. Vent holes
2. Top Edge Crimp
3. Top PTC Crimp
4. Adhesive insulation washer





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## PRC SureFire Counterfeit SF123A Primary

SureFire Original



PRC Counterfeit



Material Dissimilarities:

1. Foil printed
2. Spacer color and material
3. Missing date stamp