

Assignment on Forensic Science

Describe the proper collection and preservation of paint evidence from an automobile suspected of being involved in a hit and run incident. Paint that is foreign to the suspect automobile is observed on the hood?

Introduction

Paint is one of the sources of evidence in several hit-and run cases and can be of **significant** material value. It can provide a link between the victim and the vehicle responsible. Paint may also serve as valuable evidence in many other crimes such as burglary and homicide cases. Care should therefore, be had in collection and preservation of paint-evidence on a victim vehicle left behind by the suspect vehicle in a hit and run incident.

Collection

Collection process begins as soon as the crime occurrence is well-documented. Paint is one of the potential evidences and should be of the **same type and color** found on the suspect automobile. Paint fragments should be collected in a paper packet and put in an envelope. Reference paint chips or samples should be collected and sent to the lab for comparison (Schiro, 1999).

In respect of hit and run cases, paint from the vehicle impacted on the pedestrian victims can only be in microscopic quantities. If the garment is wet, it should be dried without excessive- handling and the paint should be wrapped separately by rolling in a paper or the collector should place the garment in a separate paper bag for being delivered to the laboratory. It should be noted that since the vehicle can be of more than one color, it is only that part of the color area which came into contact with the victim will be transferred. In a few cases, paint transfer can reveal make, model and year of the vehicle. Additionally, broken lenses and other vehicular parts that are available should be submitted to the laboratory along with the paint evidence. In few other cases, it is possible to match paint chips, broken lenses, and other body parts at accident sites with the suspect's vehicle. They should, therefore be protected from further breakage. Photograph should be taken of all areas revealing fresh damage on the involved vehicle. Exemplar paint samples should be collected from the said areas. Collection of samples from all the areas is important since different types of paint at different areas of the same vehicle may be found in spite of the topcoat color being the same. If it is not possible to flake off the paint by bending the metal slightly, the paint should be removed using a clean knife blade, or razor blade. Care should be had in wiping the blade or tool employed before collecting each sample to avoid cross contamination. The paint evidences should be of at least $\frac{1}{4}$ "x $\frac{1}{4}$ "in size to facilitate laboratory examination. There can be cross-transfers of paint in hit and run cases involving two or more vehicles. If loose paint chips are found, they should be collected and stored in prescribed containers. If the transfers are found on the surface, the investigator should flake off chips or cut paint from the vehicle and keep the transferred paint and the top layer of the paint originally on the car and store the transfers of different locations in separate containers. In case of cross-transfers, the investigator should collect known, contaminated samples from areas immediately adjacent to every collected transfer. This is crucial because such specimens enable the laboratory to distinguish between the transferred paint and original paint on the vehicle (BFS, 2011).

Preservation

It is important to keep different samples in separate containers. The entire object should be collected if the sample is too small or cannot be removed to avoid loss evidence. It would be better to avoid collection of sample by scrapping. Glass vials, metal or cardboard boxes should be used for preserving the samples so that they are protected from breakage and damage. The containers should bear the collector's name, date and time of collection along with specific source of the sample and location of sample collected. For example R/F Fender Ford, blue in color, license # ABC 123) as also the vehicle identification number (BFS, 2011).

As for the paint found on the hood, it should be noted that the paint from the right rear quarter panel **may be analytically different** from the hood. Or in some case, the hood may have been repainted owing to a prior damage or it could be even a new hood (Houck & Siegel, 2010).

References

BFS. (2011). Collection of Paint Evidence; Physical Evidence Bulletin. Bureau of Forensic Services, California Department of Justice.

Houck, M. M., & Siegel, J. A. (2010). Fundamentals of Forensic Science. Academic Press.

Schiro, G. (1999). COLLECTION AND PRESERVATION OF EVIDENCE. In A. Muth, Forensic Medicine Source Book (pp. 45-59). Detroit: Omnigraphics.