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# **TM-05-97**

## **LIQUID CHALK EVALUATION**

**By: Corporal Bob Dunlap**

### **TECHNICAL MEMORANDUM**

**Submitted by  
Corporal Bob Dunlap  
Forensic Identification Section  
Royal Canadian Mounted Police**

**February, 1997**

**NOTE: Further information  
about this report can be  
obtained by calling the  
CPRC information number  
(613) 998-6343**



## **EXECUTIVE SUMMARY**

**Corporal Bob Dunlap of the R.C.M. Police Grande Prairie Forensic Identification Section evaluated liquid chalk throughout the four (4) seasons in Northern Alberta. The product is reasonably inexpensive, non-toxic, environmentally friendly, and is easily removed by water. It is suitable for various police functions such as crime scene and traffic accident investigations.**

## **SOMMAIRE**

**Le cap. Bob Dunlap, de la Section de l'identité judiciaire de la GRC à Grande Prairie, a évalué la craie liquide dans le Nord de l'Alberta, au cours des quatre saisons. Le produit est bon marché, non toxique et sans danger pour l'environnement et s'enlève facilement à l'eau. Il a été conçu pour différentes fonctions policières, telles les enquêtes sur les lieux d'un crime et sur les accidents de la circulation.**

## **LIQUID CHALK**

**PURPOSE:** To assist police officers in the search for/preservation of, **and** collection of crime scene evidence.

**ISSUE:** The location of exhibits or evidence at scenes becomes problematic due to environmental factors beyond our control; ie. mud/pavement/snow/grass/numerous other surfaces during varying weather conditions.

During initial “scene examinations” as a police officer walks about a scene to determine what evidence needs to be collected/studies/preserved, the marking of such areas becomes a concern. By marking or indicating key points, items can be preserved/protected/then processed in a timely manner; ie. skid marks/footwear impressions/stains etc.

## **LIQUID CHALK**

Liquid chalk is a medium that has the potential for being a suitable medium as a marking tool at crime scenes.

### **PRODUCT AVAILABLE FROM**

Super Spray Chalk is available from Toys R Us, and Canadian Tire.

### **PRODUCT ANALYSIS**

- ▶ Super spray chalk comes in an assortment of brightly coloured (neon) bases such as bright green, blue, red, white
- ▶ Comprised of chalk, water, and colour additive solution
- ▶ Safe, non-toxic
- ▶ Good for outdoor use
- ▶ Has fluorescence properties
- ▶ Washes away with water

## **PRODUCT APPLICATION/APPLICATOR**

- ▶ **Pre-mixed 207 ml. plastic bottle**
- ▶ **Screw top pump sprayer, attaches easily, adjusts to pump or mist stream**
- ▶ **Brush application quite possible, ie a texture (sponge) brush**
- ▶ **Stencils utilization, ie arrows easily possible**
- ▶ **Non-clogging action when used properly**

## **SURFACE ADHERENCE TESTS**

<b>Mud</b>	<b>Grass</b>	<b>Ice</b>	<b>Hot Days 25 +deg. C.</b>
<b>Rubber</b>	<b>Snow</b>	<b>Metal</b>	<b>Cold Days -35 deg.C.</b>
<b>Cement</b>	<b>Pavement</b>	<b>Brick</b>	

**\* If placed on wood, depending on the surface texture, the chalk can enter the grain.**

**\* If the chalk gets on clothing, it can wash out.**

## **LIQUID CHALK UTILIZATION**

**Crime investigators studying the scene encounter evidence, ie. footwear, can mark same by drawing a very distinctive neon circle about it, thus protecting valuable evidence, leaving it for later collection and continuing the examination.**

**Traffic investigators studying a crash scene can draw very distinctive neon circles around evidence or use neon stencils on the road surface.**

## **ADVANTAGES OF SPRAY CHALK**

- ▶ **No propellant to damage ozone**
- ▶ **Non-clogging action**
- ▶ **Non-toxic**
- ▶ **Fluorescence properties**
- ▶ **Easily washed off by water, ie. fire truck hoses wash off identifying marks on road, preventing ongoing tragic reminders**

## **DISADVANTAGES**

- ▶ **Can freeze**
- ▶ **Can be messy**

## **PRICE**

- ▶ **For approximately \$30.00 - \$35.00 you can start with a package of three (3) bottles, two (2) sprayers, and one (1) sponge brush**
- ▶ **Shelf life - just needs to be shaken well to mix the contents. (I left a bottle for six (6) months; it worked well after being shaken)**

## **CONCLUSION**

**This product is quite suitable for adapting to the police service function.**



Super Spray Chalk