



TM-05-97

LIQUID CHALK EVALUATION

By: Corporal Bob Dunlap

TECHNICAL MEMORANDUM

**Submitted by
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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

| | | | |
|---------------|-----------------|--------------|-----------------------------|
| Mud | Grass | Ice | Hot Days 25 +deg. C. |
| Rubber | Snow | Metal | Cold Days -35 deg.C. |
| Cement | Pavement | Brick | |

*** 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