

H.Q. 14354-29-51-2 Vol. 1

DEAD

VOLUME Two (2) FOLLOWS

3/2/55

NO FURTHER CORRESPONDENCE TO BE PLACED ON THIS FILE

9

SECRET

H.S. 4354-29-5-2
(DCW & S)

H.S. 4354-20-5-3
(DCW & S) (L.1991)

OTTAWA, 19 Oct

4.

Canadian Liaison Officer,
Edgewood Arsenal,
MARYLAND,
U.S.A.

CW Laboratories Report

Forwarded herewith for your information
and distribution please find copies Nos 15 to 19 of CWL
Research Section Report No 44 and Proofing Section Report
No 12.

DJD/MT
Enc.

(D.J. Dewar), Major,
for Director of Chemical Warfare & Smoke.

54354-29-5-2

SECRET

QUOTE No. CML-15-2-5

DEPARTMENT OF NATIONAL DEFENCE
ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 18 Oct 44



D.C.W. & S.,
New Army Bldg.,
Cartier Square,
O t t a w a.

Attn: Major D.J. Dewar

We are enclosing for your information Copies
of the following:

No. Copies 1-2, 5-6, 7-10, 13-14, 15-19.

Research Section Report No. 44. Performance of Sodium Flame Penetrometer.

Proofing Section Report No. 12. Experiments on the Reduction of the Ammonia Content and Ammonia Desorption of Canadian Chromium-Copper-Silver Whetlerite.

May receipt of the enclosure be acknowledged, please, by signing and returning the lower portion of this letter.

HL/MB
Encl. 30

B. Lang
(Miss) B. Lang
for Superintendent of Research.

216

PA

Hqs. 4354-29-5-2

PA.

QUOTE NO. CWL-15-2-5

SECRET

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

19 Sept. 44

OTTAWA, CANADA.

D.C.W. & S.,
Army Building,
Ottawa.

Attention: Major D.J. Devar.
We are enclosing for your information Copies
of the following:

Copies 1, 2, 5, 6, 7, 8, 9, 10, 13, and 14.
Research Section Rept. No. 43. An accurate conductivity method
for determining low concentrations of ammonia ...

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

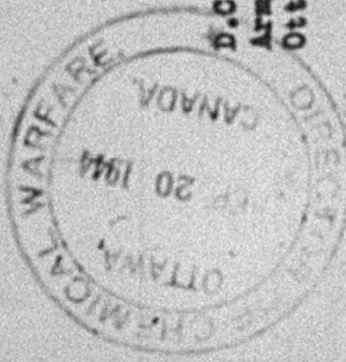
BL/HAF
Encl.

B. Lang
(Miss) B. Lang,
for Superintendent of Research.

493

215

Ac'd
20/9/44
W. H. Lang
for D.C.W. & S.



54354-29-5-2

CONFIDENTIAL

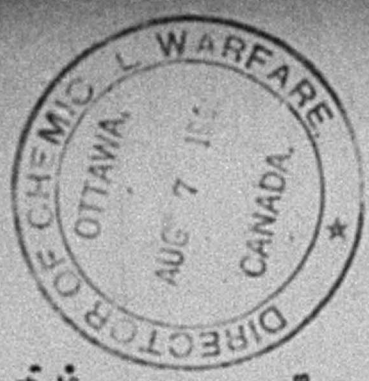
CWL-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA. 5 August, 1944,
National Research Council Bldg.



D.C.W. & S.

Attention: Major D.J. Dewar

We are enclosing for your information Copies
of the following:

Copy 1-2, 5-8
Service issue of C.W.L. 1 Ointment. 25.7.44.

Copy 1 & 3
Res. Sec. Note 36. A short study of the effect of
charcoal grading on resistance of the L/T container.

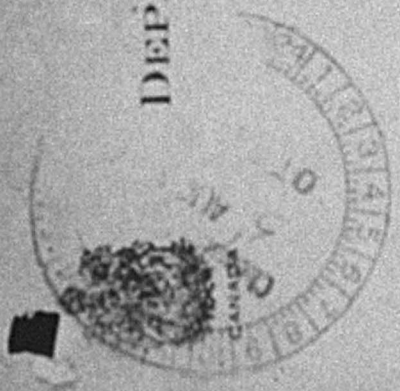
Copy 3-4
Dev. Sec. Rept. 46. Examination of Masks Ll, Large....

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

B. Lang

(Miss) B. Lang,
for Superintendent of Research,

MR
Encl.



6/9/44

648

706

SECRET

HQS. 4354-29-5-2 (DCW&S) (L.1250)
HQS. 4354-31-1 (DCW&S)

27 Jul 44

C.L.O.
E.S.S.

Research Section Note

Forwarded herewith for your information and retention please find Research Section Note No. 35 entitled "Manufacture of Aluminum Stearate for Use in Flame Thrower Fuels."

/jh
enc

W.L.L.
(W L Lane) Capt
for D.C.W. & S.

201

54354-29-5-2

ALOTIC NO. CWL-15-2-5

CONFIDENTIAL

DEPARTMENT OF NATIONAL DEFENCE
ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 25 Jul 44
Natl. Res. Council Bldg.

D.C.W. & S.,
New Army Bldg.

Attention: Major D.J. Dewar

We are enclosing for your information Copies
No. of the following:

Copies 1-2, 5-10, 13-14
Res. Sec. Rept. 42. Development of the No.24 Generator,
Canadian design....

Copies 1-2, 5-10, 13-14, 28
Amendment to Dev. Sec. Rept. 99, Cold weather trials of
Canadian Arctic eyepiece.

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

MR
Encl.

Mr (Miss) M. D. Morton,
For Superintendent of Research.



HQS 4354-29-5-2

SECRET

OWLS-15-2-5

DEPARTMENT OF NATIONAL DEFENCE
ARMY
CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA.

9 June 44



D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa.

Attention: Major D.J. Dewar

We are enclosing for your information copies
of the following:

- No. 1, 2, 5, 6, 7, 8, 9, 10, 13, 14.

Research Section Report No. 39.

The Reaction of hydrogen cyanide with
hydrogen fluoride.

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

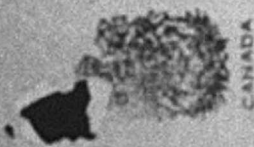
W. W. M. M. M.

for (Miss) B. Lang,
for Superintendent of Research.

/v
Encl.

163

Ack.
12/4/44



CWL-S-15-2-5

SECRET

9 June 44

D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa.

Attention: Major D.J. Dewar

1, 2, 5, 6, 7, 8, 9, 10, 13, 14.

Research Section Report No. 39.

The Reaction of hydrogen cyanide with
hydrogen fluoride.

Ack.
17 6/44

mw

/v

(Miss) B. Lang,

CWL-S-15-2-5

9 June 44

1, 2, 5, 6, 7, 8, 9, 10, 13, 14.

Research Section Report No. 39.

The Reaction of hydrogen cyanide with hydrogen fluoride.

162

54334 - 29-5-2

CONFIDENTIAL

NOTE: CML-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA.

29 May 44

D.C.W & S.,
New Army Building,
Cartier Square,
Ottawa.

Attention: Major D.J. Dever

We are enclosing for your information Copies of the following:
No. 1 & 2

Research Section Note No. 31.

Clogging of Paper Filters.



May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

/v
Encl.

B. Lang

(Miss) B. Lang,
for Superintendent of Research.

161

out of 30/44

344

54354 - 29-5-2

RESTRICTED

QCOTE NO. CML-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE
ARMY
CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA.

25 May 44



D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa.

We are enclosing for your information Copies
of the following:

No. 1 & 3

Research Section Note No. 30.

Report on the Leakage through the Outlet Valve
of Light Type Respirators.

Handwritten signature and initials

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

Handwritten signature

/v
Encl.

(Miss) M.D. Morton
for Superintendent of Research.

381

160

Supt. of Research,
W. Labs.

S.4354-29-5-3 { D.C.S. }
S.4354-29-5-2 { D.C.S. }
S.4354-29-5-4 { D.C.S. }

2 May 44

C.W.L. Reports

1. At a recent meeting of officers of D.S.D. (W) this Directorate was advised that copies of C.W.L. Physiological Section Reports would no longer be required by D.S.D. (W).
2. This Directorate was also advised that copies of Proofing Section Reports and Research Section Reports would normally not be required. Copies of these reports will be forwarded on file for D.S.D. (W)'s information and if a copy of a particular report is desired for retention by D.S.D. (W) you will be advised through this Directorate.

DJD/JH

c.c. to D.S.D. (W)



DJD
(D J Denar) Major
for D.S.D. & S.

154

MEMORANDUM MOST - SECRET

TO: DSD (W)

H.Q.S. 4354-29-5-2 (DOW & S)

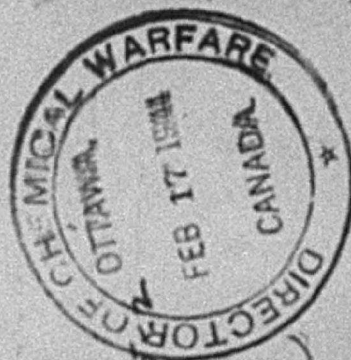
DATE: 17 Feb 44

Canadian Chemical Warfare Reports

Forwarded herewith, for your distribution, please find copy No. 28 of the following report(s)

C.W. Laboratories Research Section Report
No. 36.

for D.C.W. & S.



PG 8-4354-29-5-2

18-2-44

PC

HQS 4354-29-502

IN REPLY PLEASE QUOTE

No. CML-8-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 15 Feb 1944



SECRET

D.C.V.A.S.,
New Army Building,
Cartier Square,
Ottawa, Ontario.



I am enclosing for your information Copies
of the following report(s):

- No. 1, 2, 5, 6, 7, 8, 9, 10, 28.

Research Section Report No. 36.

Synthesis of the Methiodide of 2:4 Dimethyl-5-
Dimethylaminophenyl - N-Methylcarbamate.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

DB/V
ENCLOS.

D. Bate
(Mrs.) D. Bate,
for Superintendent of Research.

PL-4354-29-5-2
18-2-44

De

B

H.Q.S. 4354-29-5-2 (DCW&S)

CII Laboratories

Research Section Report 36

MOST SECRET

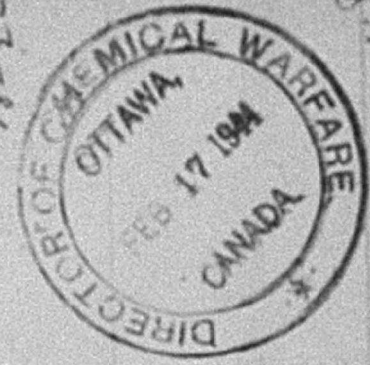
Copy 1 & 2 in DCW Most Secret Box

PA 4354-29-5-2
18-2-44

17/2/44

Spencer

PA 4354-29-5-2
18-2-44



54354-29-5-2
IN REPLY PLEASE QUOTE
No. CML-S-15-2-5



DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 6 Apr 1944

SECRET

D.C.W. & S.,
New Army Bldg.,
Cartier Sq.,
Ottawa, Ont.



I am enclosing for your information Copies
of the following report(s): for transmission.

- No. 1, 2, 5, 6, 7, 8, 9, 10, 13, 14, 29.

Research Section Report No. 37.

Development of a protective carbon monoxide
container for an assault type respirator under high
humidity and temperature conditions.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

B. Lang

(Mrs.) D. Eate,
for Superintendent of Research.

/v
Encls.

152

*sent 4/44
8 JLD*

MEMORANDUM

SECRET

TO: D.S.D. (W)

H.Q.S. 4354-29-5-2 (DCW & S)

DATE 8 Apr 44

Canadian Chemical Warfare Reports

Forwarded herewith for your retention
distribution please find Copy No. 29
of the following report(s)

C.W. Laboratories Research Section Report No. 37.

W.L. Capt.
for D.C.W. & S.



157

MEMORANDUM SECRET

TO: DSD (W)

DEPARTMENT OF NATIONAL DEFENCE

H.Q.S. 4354-29-5-2 (DCW & S)

DATE: 1 Feb 44

Canadian Chemical Warfare Reports

Forwarded herewith, for your information and retention, please find copy No. 29 of the following report(s)

C.W. Laboratories Research Section Report No. 33.



DSD
for D.C.W. & S.

150



CANADA

54354-29-5-2

IN REPLY PLEASE QUOTE

No. CML-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 31 Jan. 1944

SECRET

D.C.W. & S.,
New Army Building,
Cartier Square,
OTTAWA.



Attention: Major D.J. Dewar.

I am enclosing for your information Copies
of the following report(s):

Copies 1 - 4. Field Trial No. 42. Amendment.

Copies 1, 2, 5, 6, 7, 8, 9, 10, 13, 14 and 29, Research Section Rept. No. 33.

The estimation of low concentrations of nitric oxide and nitrogen
dioxide in an air stream, and study of the rate of oxidation.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

D. Bate

(Mrs.) D. Bate,
for Superintendent of Research.

DB/HAT

145

*asked
and
J.D. 7/44*

54354-29-5-2

IN REPLY PLEASE QUOTE

No. CML-S-15-2-5



DEPARTMENT OF NATIONAL DEFENCE

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 15 Nov.

1943

SECRET

D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa, Ont.

I am enclosing for your information Copies
No. 5 & 6 of the following report(s): for Transmission to C.M.H.Q.
England.

Research Sect. Rept. No. 31. The penetration of Z through service charcoals
under high humidity conditions.

P.P. 40. The water, iron and chloride content of the respiratory tract in
phosgenized rabbits, cats, dogs and rats.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

B. Lang

for (Mrs.) D. Bate,
for Superintendent of Research.

HAT

14354-29-5-2

54364 - 29-5-2

IN REPLY PLEASE QUOTE

No. CWL-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 15 Nov.

SECRET

D.C.W. & S..
New Army Building,
Cartier Square,
Ottawa, Ont.

I am enclosing for your information Copies
No. 13 & 14 of the following report(s): for transmission to Australia.

Research Sect. Rept. No. 31. The penetration of Z through service charcoals
under high humidity conditions.

54364-30-3
16/11/43
O.P. 40. The water, iron and chloride content of the respiratory tract in
phosgenized rabbits, cats, dogs and rats.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

B. Rang

baw (Mrs.) D. Bate,
for Superintendent of Research.

OK
54364-29-5-2
HAT
E3

1949



CANADA

54354-295-2

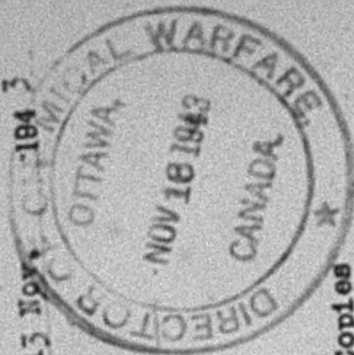
IN REPLY PLEASE QUOTE

No. CWL-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE
ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 15 Nov. 1943



SECRET

D.C.W. & S.,
New Army Building,
Certier Square,
Ottawa, Ont.

I am enclosing for your information Copies

No. 1 & 2 of the following report(s):

No. 1. The penetration of Z through service charcoals under high humidity conditions.

No. 2. The water, iron and chloride content of the respiratory tract in phosgenized rabbits, cats, dogs and rats.

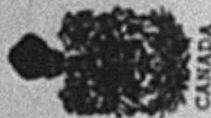
May receipt of this report be acknowledged and returning the lower portion of this

letter.

B. Lang

for (Mrs.) D. Bate,
for Superintendent of Research.

54354-295-2
HAT



CANADA

HQS 4354-29-5-2

IN REPLY PLEASE QUOTE

No. CWL-S- 15-2-5

DEPARTMENT OF NATIONAL DEFENCE ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 5 Nov 1943

SECRET

D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa.

For Transmission to Australia.

I am enclosing for your information Copies
No. 13 - 14 of the following report(s):

Research Section Report No. 30.
Use of Pyridine in the Preparation of a Wnetlerite
with Increased CC Protection.

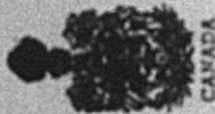
CORRIGENDA - Proofing Section Report No. 10.

May receipt of this report be acknowledged
please, by signing and returning the lower portion of this
letter.

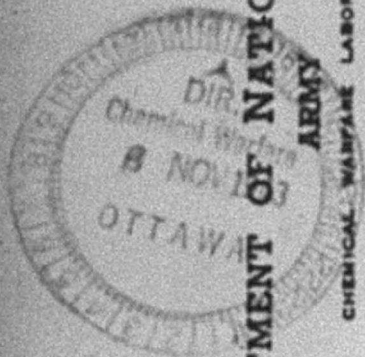
B. Lang for
(Mrs.) D. Bate,
for Superintendent of Research.

14
4354-29-5-2
ET

HQ 54354-24-5-2



CANADA



IN REPLY PLEASE QUOTE
No. CWL-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 5 Nov 1943

SECRET

D.C.Y & S.,
New Army Building,
Cartier Square,
Ottawa.

FOR TRANSMISSION TO
Ministry of Supply (CCDD), England.

I am enclosing for your information Copies
No. 7 - 10 of the following report(s):

Research Section Report No. 30.
Use of Pyridine in the Preparation of a Whetlerite
with Increased CC Protection.

CORRIGENDA - Proofing Section Report No. 10.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

B. Lang.
(Mrs.) D. Bate, *per*
for Superintendent of Research.

14
14354-24-5-2
24

1344

HQS 4354-29-5-2



IN REPLY PLEASE QUOTE
No. CWL-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE
ARMY

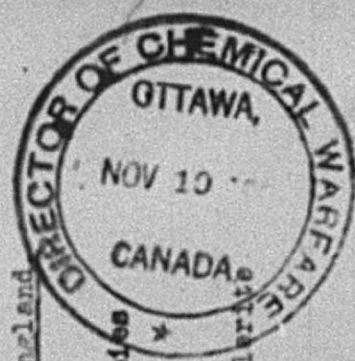
CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 5 Nov 1943

SECRET

D.C.W. & S.,
New Army Building,
Cartier Square
Ottawa.

FOR TRANSMISSION TO C.M.H.S., England



I am enclosing for your information Copies
No. 5 - 6 of the following report(s):

Research Section Report No. 30.

Use of Pyridine in the Preparation of a Whetstone
with Increased CC Protection.

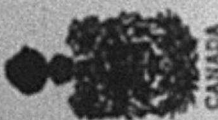
CORRIGENDA - Proofing Section Report No. 10.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

B. Bangs for
(Mrs.) D. Bate,
for Superintendent of Research.

1347

14354-29-5-2
1347



CANADA

DEPARTMENT OF NATIONAL DEFENCE
ARMY

CHEMICAL WARFARE LABORATORIES

Ottawa, Ontario, 5 Nov

1943

SECRET

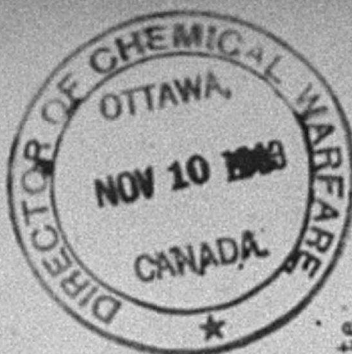
D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa.

No. 1-2 I am enclosing for your information Copies
of the following report(s):
Research Section Report No. 30.
Use of Pyridine in the Preparation of a Whetlerite
with Increased CC Protection.

CORRIGENDA - Proofing Section Report No. 10.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

B. Lang
(Mrs.) D. Bate,
for Superintendent of Research.



54354-29-5-2

IN REPLY PLEASE QUOTE

No. CWL-S-15-2-5

54354-29-5-2
E7

54364-29-5-2

IN REPLY PLEASE QUOTE

No. CWL-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, October 4, 1943.

SECRET

Director of Chemical Warfare,
New Army Building,
Cartier Square,
OTTAWA.

Attention: Major D.J. Dewar.

I am enclosing for your information Copies
No. 5 to 10 of the following report(s) for transmission to
Lt. Col. Sawyer:-

Research Section Report No. 27. β -chloroethyl N- β -chloroethyl-
N-nitrosocarbamate.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

Encl.
CL

(Mrs.) D. Bate,
for Superintendent of Research.

D. Bate

1346

54364-29-5-2
CL

*ackd
forwarded
54364-30-1-1
5 1943
DJB*



54364-29-5-2

IN REPLY PLEASE QUOTE

No. CWL-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, October 4, 1943.

SECRET

Director of Chemical Warfare,
New Army Building,
Cartier Square,
OTTAWA.

Attention: Major D.J. Dewar.

I am enclosing for your information Copies
No. 5 to 10 of the following report(s) for transmission to
Lt. Col. Sawyer:-

Research Section Report No. 27. β -chloroethyl N- β -chloroethyl-
N-nitrosocarbamate.

My receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

D. Bate

(Mrs.) D. Bate,
for Superintendent of Research.

Encl.
CL \

54364-29-5-2
Cf.

*ack
forwarded
54364-30-1-1
54364-10-1-3
5
DJD*

1342

54354-29-5-2

IN REPLY PLEASE QUOTE

No. CWL-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, October 2 1943.

SECRET

D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa, Ont.

I am enclosing for your information Copies
No. 1 & 2 of the following report(s):

Research Section Report No. 27. β -chloroethyl N- β -chloroethyl-
N-nitrosocarbamate.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

D. Bate

(Mrs.) D. Bate,
for Superintendent of Research.

CL

24354-29-5-2

27

1346



IN REPLY PLEASE QUOTE

No. CWL-S-15-2-5

54354-24-5-2

DEPARTMENT OF NATIONAL DEFENCE

ARMY

Chemical Warfare Laboratories

SECRET

August 18th, 1943,
National Research Council Building,
Ottawa, Ont.

Director of Chemical Warfare,
New Army Building,
Cartier Square,
Ottawa, Ont.

Attention: Major D.J. Dewar.

I am enclosing for your information copies 30
of the following report: for transmission to Lt. Col. Sawyer.
Research Section Report No. 26. The Attempted Preparation
of Trifluoronitrosomethane.



May receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.

M. D. Morton

for (Mrs.) D. Bate,
for Superintendent of Research.

Encl.
OL

134B

COPY

MOST SECRET

54354-29-5-2



CANADA

Circulated as:
Research Section Report No.25.

Copy 2 of 30.

Ottawa, August 4, 1943.

CHEMICAL WARFARE LABORATORIES, OTTAWA

SUBJECT

Preparation of the methiodide of the N-methylcarbamic
ester of 2-hydroxy-4-dimethylamin-toluene.

by

Dr. Leo Marion

SUMMARY

filed - M.S. Sec. Daw-3

IX
54354-29-5-2
CS

MEMORANDUM

SECRET

TO: **MBD (W)**

H.C.S. 4354-29-~~5-2~~ (DOV & S)

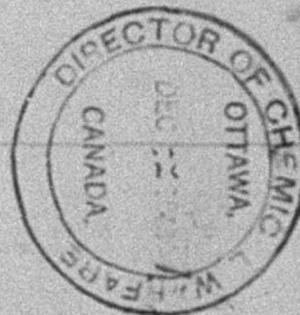
DATE: **16 Dec 43**

Canadian Chemical Warfare Reports

Forwarded herewith, for your
distribution, please find copy No. 2
of the following report(s)

C. W. Laboratories Research Section Report No. 35.
" " " **Intelligence Section Report No. 5.**

SJS
for D.C.W. & S.



114

54354 - 29-5-2

IN REPLY PLEASE QUOTE

No. CWL-8-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, December 15, 1943

SECRET

D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa, Ont.

I am enclosing for your information Copies
No. of the following report(s):

Copies 1, 2, 5, 6, 7, 8, 9, 10, 13, 14 and 29. Research Section
Report No. 35. Interim Report on Canadian Modification of Case,

Water Testing, Poisons.

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

A. Bate

(Mrs.) D. Bate,
for Superintendent of Research.

DB/HAT

113

*ack
submitted
16/1/43*

COPY

54204-29-5-2

CANADA

CHEMICAL WARFARE LABORATORIES, OTTAWA

MOST SECRET

Circulated as:
Research Section Report No. 32.

Copy 1 of 30

Ottawa, October 20, 1943.

Synthesis of the methiodide of 4-methyl-3-dimethyl-aminophenyl N-methylcarbamate.

by

Dr. Leo Marion

SUMMARY

54354-29-5-2

IN REPLY PLEASE QUOTE
No. CWL-S-15-2-5



DEPARTMENT OF NATIONAL DEFENCE

ARMY
CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 22 Nov 1943
National Research Building, Ottawa.

SECRET

D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa.

For transmission to C.M.H.S., England.

No. 5 - 6 of the following report(s):
I am enclosing for your information Copies

Research Section Report No. 29.

Impregnation of Charcoal with Amines to improve
Cyanogen Chloride Protection.

*ack
forwarded
54354-29-1-1
23 1/43
yld*

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

B. Lang

for (Mrs.) D. Bate,
for Superintendent of Research.

ENCLS.

54354-29-5-2

IN REPLY PLEASE QUOTE

No. CML-S-15-2-5



DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 22 Nov 1943

SECRET

D.C.W. & S.,
New Army Building,
Cartier Square
Ottawa, Ont.

For transmission to Ministry of Supply
(C.C.D.D.) England.

I am enclosing for your information Copies
No. 7 - 10 of the following report(s):

Research Section Report No. 29.

Impregnation of Charcoal with Amines to Improve
Cyanogen Chloride Protection.

*ack
forwarded 30-11-43
54354-29-5-2
33/43
BIA*

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

B. Lang

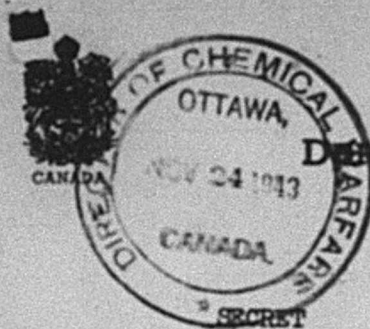
per (Mrs.) D. Bate,
for Superintendent of Research.

ENCLS.

54354-29-5-2

IN REPLY PLEASE QUOTE

No. CWL-S- 15-2-5



DEPARTMENT OF NATIONAL DEFENCE
ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 22 Nov 1943

National Research Bldg., Ottawa.

SECRET

D.O.W. & S.,
New Army Building,
Cartier Square,
Ottawa.

For transmission to Australia.

I am enclosing for your information Copies
No. 13-14. of the following report(s):

Research Section Report No. 29.

Impregnation of Charcoal with Amines to Improve
Cyanogen Chloride Protection.

ack
forwarded
54354-30-3
23/11/43
SFA
May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

Encls.

B. Lange
for (Mrs.) D. Bate,
for Superintendent of Research.

Superintendent of Research,
Chemical Warfare Laboratories,
National Research Building,
Ottawa, Ontario.

CWL-S- 15-2-5

22 Nov 43

I hereby acknowledge receipt of Copies
No. 13-14 of the following secret report(s):

Research Section Report No. 29.

Impregnation of Charcoal with Amines to Improve
Cyanogen Chloride Protection.

Date

Signed

54364-29-5-2

IN REPLY PLEASE QUOTE

No. CWL-S-15-2-5



DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, Ontario, 22 Nov 1943

National Research Building, Ottawa.

SECRET

D.C.W & S.,
New Army Building,
Cartier Square
Ottawa.

I am enclosing for your information Copies
of the following report(s):

Research Section Report No. 29.

Impregnation of Charcoal with Amines to
Improve Cyanogen Chloride Protection

No. 1-2

ack
23 11/43
23 11/43

May receipt of this report be acknowledged
please by signing and returning the lower portion of this
letter.

B. Lang

for (Mrs.) D. Bate,
for Superintendent of Research.

Encls.

708



CANADA



QUOTE NO.

DEPARTMENT OF NATIONAL DEFENCE ARMY

C. W. Laboratories, National Research Council Annex,
13 AUG 1943. John & Sussex Streets, Ottawa.

OTTAWA, CANADA.

54354-29-5-2

12 August 1943.

Major D. J. Dewar,
D. C. W. & S.,
New Army Building,
Cartier Square,
Ottawa, Ontario.

1. In Porton letter #140558 (55/4150/9 (5011)), comments on C.W.L. Research Section Report No. 20, Porton requests that we send them a sample of commercial wool-resin filters and some Beckacite 1643 resin.

2. I am sending up to you for forwarding to Porton, one box of wool-resin filters, and one box containing five (5) pounds of Beckacite. Can these be forwarded to Porton, with the covering information as to which Porton letter they are a reply to (i.e. to #140558) ?

M. W. Lister, Capt.
for Superintendent of Research.

MWL/GM

55/4150/9 (5011)

21 Jul 43 C/1407

Advised C. W. H. H.
re shipment

54354-30-1-1

, 3rd/43

63

IN REPLY PLEASE QUOTE

No. CML-8-15-2-5

34354-29-5-2

DEPARTMENT OF NATIONAL DEFENCE

ARMY

Chemical Warfare Laboratories

August 17th, 1943.
National Research Council Building,
Ottawa, Ont.

SECRET

Director of Chemical Warfare,
New Army Building,
Cartier Square,
Ottawa, Ont.

Attention: Major D.J. Dewar.

I am enclosing for your information copies 22 to 26
of the following report: for transmission to Lt. Col. Sawyer.

Research Section Report No. 26. The Attempted Preparation of
Trifluoronitrosomethane.

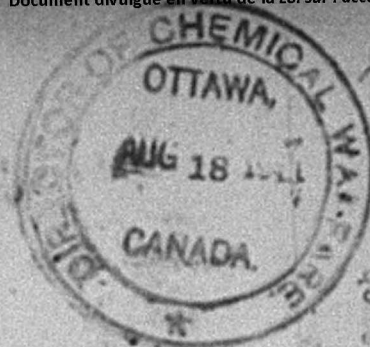
ack
18/8/43
forwarded 30-1-1
34354-29-5-2

receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.

W.D. Dwyer

Encl.
OL

for (Mrs.) D. Bate,
for Superintendent of Research.



IN REPLY PLEASE QUOTE

No. CWL-8-15-2-5

S4354-29-5-2
DEPARTMENT OF NATIONAL DEFENCE

SECRET ARMY
Chemical Warfare Laboratories

August 17th, 1943,
National Research Council Building,
Ottawa, Ont.

Director of Chemical Warfare,
New Army Building,
Cartier Square,
Ottawa, Ont.

I am enclosing for your information copies 3 and 4
of the following report:
Research Section Report No. 26. The Attempted Preparation of
Trifluorenitroresonethane.

May receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.

W.D. Morton

for (Mrs.) D. Bate,
for Superintendent of Research.

Encl.
CL



ack
18 9/43
[Signature]

IN REPLY PLEASE QUOTE

No. CWL-S-15-2-5

S 4354-24-5-2

DEPARTMENT OF NATIONAL DEFENCE

ARMY

Chemical Warfare Laboratories

August 17th, 1943.
National Research Council Building,
Ottawa, Ont.

Attention: Major D.J. Dewar.

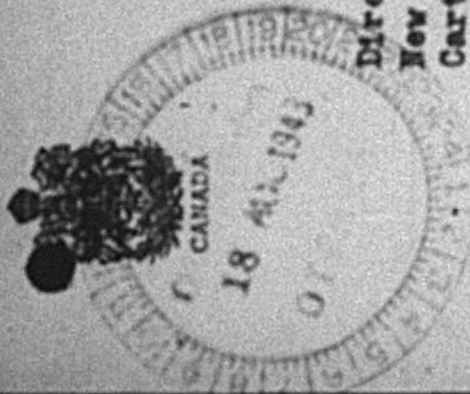
I am enclosing for your information copies 5 to 10
of the following report: for transmission to Lt. Col. Sawyer:-

Research Section Report No. 25. Preparation of the methiodide of
the N-methylcarbamate ester of 2-hydroxy-4-dimethylamin-toluene.

May receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.

M. D. Peyton

(Mrs.) D. Bate,
for Superintendent of Research.



ackd
5/43
forwarded 30-1-1
S 4354-24-5-2
Encl. 18 1/2
CL

IN REPLY PLEASE QUOTE

No. CML-3-15-2-5

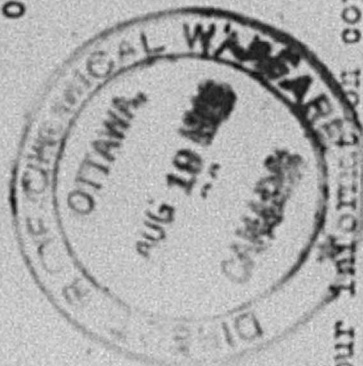
54354-29-5-2

DEPARTMENT OF NATIONAL DEFENCE

ARMY

Chemical Warfare Laboratories

August 17th, 1943,
National Research Council Building,
Ottawa, Ont.



D. C. W. & S.,
New Army Building,
Cartier Square,
Ottawa, Ont.

I am enclosing for your information copies 1 and 2
of the following report:

Research Section Report No. 25. Preparation of the methiodide of
the N-methylcarbamate ester of 2-hydroxy-4-dimethylamin-
toluene.

Not Sent - Box

May receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.

M. D. Norton

Encl.
CL

for (Mrs.) D. Bate,
for Superintendent of Research.

MEMORANDUM

TO: D.M.T.

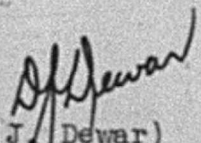
Attn: Captain Stevens

H.Q.S. 4354-29-5-2 (DCW&S)

DATE: 4 Aug 43

Light Type Respirator
Fitting Trials with Chlorine

1. Please see at preceding folios a copy of our S.4354-29-5-2, S.4354-22-1, of a Jun 43 and the reply of the Superintendent of Research, C.W. Labs., recommending that, for the present, fitting trials with the light type respirator should be carried out with C.A.P. only.
2. A single or even several exposures to chlorine will have relatively slight effect on the filter but this recommendation has been made to prevent any damage as a result of possible repeated exposures.
3. The container itself gives good protection against chlorine, so the mentioning of the effect of chlorine might tend to give an incorrect view of the situation. If you concur in this recommendation, therefore, it is suggested some other reason - e.g. shortage of chlorine cylinders, etc. - be given as the cause of the change.


(D. J. Dewar)
Major

for Director of Chemical Warfare & Smoke

DJD/AGS



In reply quote No. CWL-S-4-1-2-4

DEPARTMENT OF NATIONAL DEFENCE
ARMY

INTER-OFFICE CORRESPONDENCE

5435v-29-5-2

27 July, 1943.

Attention: Major D.J. Dewar.

Light Type Respirator
Fitting Trials with Chlorine

Reference your memo to Superintendent of Research
of 2.6.43.

1. Although the effect of chlorine on the present filter of the L/T container is only slight, it is significant and could conceivably cause serious decrease in protection.
2. Work is now underway to correct this weakness but practical results are not expected for some time.
3. Discussion with D.M.T. has assured us that restricting fitting trials with the L/T respirator to C.A.P. would cause no inconvenience.
4. It is, therefore, recommended that D.M.T. be instructed to use only C.A.P. in fitting trials for the L/T respirator. It is emphasized that in such recommendation the deleterious effect of chlorine on the wool-rosin filter should not be stated so as to give an incorrect view of the protection afforded by the L/T respirator.

JD/MR

J. Dacey
(J. Dacey) Major,
for Superintendent of Research.

In reply quote No. CWL-S-4-1-2-4

DEPARTMENT OF NATIONAL DEFENCE
ARMY
INTER-OFFICE CORRESPONDENCE

5435v-29-5-2

27 July, 1943.



Attention: Major D.J. Dewar.

Light Type Respirator
Fitting Trials with Chlorine

Reference your memo to Superintendent of Research
of 2.6.43.

1. Although the effect of chlorine on the present filter of the L/T container is only slight, it is significant and could conceivably cause serious decrease in protection.
2. Work is now underway to correct this weakness but practical results are not expected for some time.
3. Discussion with D.M.T. has assured us that restricting fitting trials with the L/T respirator to C.A.P. would cause no inconvenience.
4. It is, therefore, recommended that D.M.T. be instructed to use only C.A.P. in fitting trials for the L/T respirator. It is emphasized that in such recommendation the deleterious effect of chlorine on the wool-resin filter should not be stated so as to give an incorrect view of the protection afforded by the L/T respirator.

JD/MR

J. Dacey
(J. Dacey) Major,
for Superintendent of Research.

IN REPLY PLEASE QUOTE

No. CML-S-15-2-5

54334-29-5-2

DEPARTMENT OF NATIONAL DEFENCE

ARMY

Chemical Warfare Laboratories

SECRET

June 25th, 1943,
National Research Council Building,
Ottawa.

Director of Chemical Warfare,
New Post Office Building,
Ottawa, Ontario.

Attention: Major D.J. Dewar.

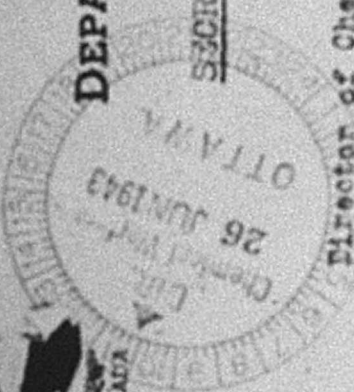
I am enclosing for your information copies 5 to 10
of the following report: for transmission to Lt-Col. Sawyer:

Research Section Report No. 23 - The Fluorination of Silver Cyanide.

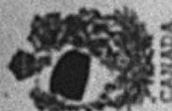
My receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.

D. Bate

(Mrs.) D. Bate,
for Superintendent of Research.



*ack
sent 26 JUN 43
S. J. M.
see*



IN REPLY PLEASE QUOTE

No. CML-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE
ARMY
Chemical Warfare Laboratories

June 25th, 1943,
National Research Council Building,
Ottawa, Ont.

SECRET

54354 - 29-5-2

D.C.M. & S.,
New Post Office Building,
Ottawa, Ontario.

Enclosed are enclosing for your information copies 1 and 2
of the following report:

Research Section Report No. 23 - The Fluorination of Silver
Cyanide.

May receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.

Encl.
CL

(Mrs.) D. Bate,
for Superintendent of Research.

D. Bate

*Oct 14/43
23
D.B.*

S. of R.
CW Laboratories

H.Q.S. 4354-22-1 (D.C.W. & S.)
S. 4354-29-5-2

2 June 43

Light Type Respirator
Fitting Trials in Chlorine

Reference your CWL Research Section
Report No. 20 "Effect of Phosgene, Chlorine,
and Hydrogen Chloride on Wool Resin Filters."

At the present time Canadian Service
personnel are given a respirator fitting test
in a chlorine chamber (concentration of Cl_2
1:4,000 to 1:10,000) for about 5 minutes. Pre-
sumably this chlorine fitting test will also be
given to personnel issued with Light Type Res-
pirators.

CWL Research Section Report indicates
that this quantity of chlorine might have a
serious effect on container penetration as
measured by the American T.P.P. penetrometer.
It is appreciated that the American penetrometer
is extremely sensitive -- probably too sensitive
for ordinary service requirements -- but it is
for consideration whether the Light Type Respir-
ator should be tested in chlorine.

Your comments would be appreciated.



DJD/JH

DJD
(D J Dewar) Major
for Director Chemical Warfare & Smoke



IN REPLY PLEASE QUOTE

No. CWL-9-15-2-5

3434-29-5-2
DEPARTMENT OF NATIONAL DEFENCE

SECRET
ARMY
Chemical Warfare Laboratories

June 1st, 1943.
National Research Council Building,
Ottawa.

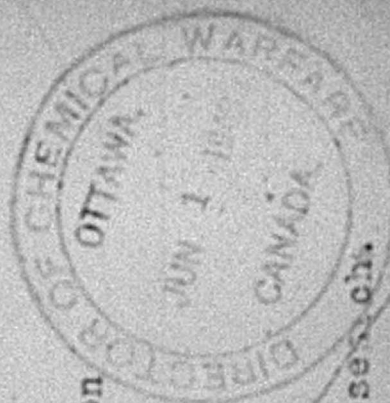
Director of Chemical Warfare,
New Post Office Building,
Ottawa, Ontario.

Attention: Major D.J. Devar.

I am enclosing for your information copies 5 to 11 and no. 28
of the following reports: for transmission to Lt. Col. Sawyer.
Research Section Rept. No. 20 - Effect of Phosgene, Chlorine and
Hydrogen Chloride on Wool Resin Filters.

Research Section Rept. No. 21 - The Fluorination of Perchloro-Methyl-
Mercaptan.

May receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.



ack: 6/14/43
forwarded to D. Bate
copy passed me
(Mrs.) D. Bate,
for Superintendent of Research.

Encl.
CL

IN REPLY PLEASE QUOTE

No. CWT-5-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

Chemical Warfare Laboratories

SECRET

June 1st, 1943,
National Research Council Building,
Ottawa.

Director of Chemical Warfare,
New Post Office Building,
Ottawa, Ontario.

I am enclosing for your information copies 1 and 2
of the following reports:-

Research Section Report No. 21 - The Fluorination of Perchloro-Methyl
Mercaptan by B.S. Rabinovitch and D.A. McLeod.
Research Section Report No. 20 - Effect of Phosgene, Chlorine and
Hydrogen Chloride on Wool Resin Filters.

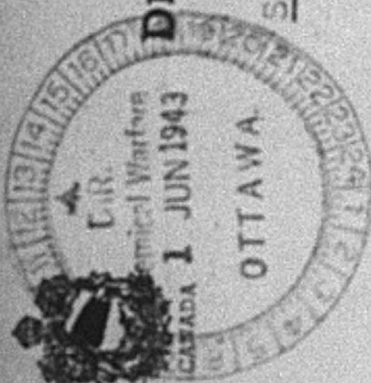
May receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.

Encl.
OL

(Mrs.) D. Bate,
for Superintendent of Research.



D. Bate

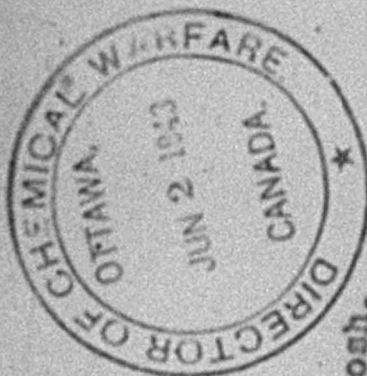


54354-29-5-2

*ack
D.B.
5/1/43*

54354-29-5-2
54

HQS. 4354-29-5-2
(DOWNS)



Ottawa

1 June

3

Dr. R.L. McIntosh,
Department of Chemistry,
McGill University,
Montreal, P.Q.

C.W.L. Research Report No. 20

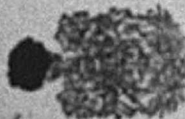
Forwarded herewith for your information and retention, please find copy number 28 of Research Report number 20 "Effect of Phosgene, Chlorine and Hydrogen Chloride on Wool Resin Filters".

Would you please show this report to the Extra-Mural workers at the Pulp and Paper Research Institution if you consider it advisable?

DJD/AGS

(D.J. Dewar) Major

for Director of Chemical Warfare and Smoke



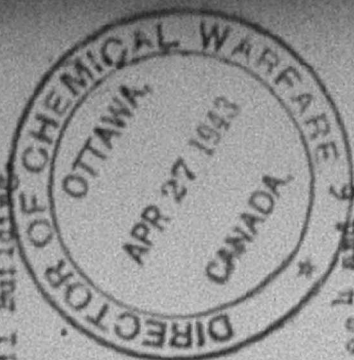
CANADA

QUOTE NO. CML-5-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY
CHEMICAL WARFARE LABORATORIES

54354-29-5-2

OTTAWA, CANADA, April 21st, 1943.
National Research Council BuildingSECRETDirector of Chemical Warfare,
New Post Office Building,
Ottawa, Ontario.I am enclosing for your information copies 4 and 5
of the following report:-Research Sect. Rept. No. 19 - Purification of Levenstein H.S.
by Solvent Extraction.May receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.*D. Bato*(Mrs.) D. Bato,
for Superintendent of Research.

CL

54354-29-5-2

L.B.

QUOTE NO. CWL-S-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY
CHEMICAL WARFARE LABORATORIES



OTTAWA, CANADA, April 21st, 1943.
National Research Council Building.

Director of Chemical Warfare,
New Post Office Building,
Ottawa, Ontario.

Attention: Major D.J. Dever.

I am enclosing for your information copies 22 to 26
of the following report for transmission to Col. Sawyer:-

Research Sect. Rept. No. 19 -- Purification of Levenstein H.S.
by Solvent Extraction.

May receipt of this report be acknowledged
please by signing and returning the lower portion
of this letter.

W. Bate

(Mrs.) D. Bate,
for Superintendent of Research.

CL

P.A.
64264-29-5-2
4.13

CH.Q.S. 4354-29-5-2 VOL. 2

DEAD SECRET

H.F.B. 2070
50M-4-4 (1944)
H.F.B. 2071-2

DEPARTMENT OF NATIONAL DEFENCE - OTTAWA, CANADA

CROSS REFERENCE

SUBJECT C.W. REPORTS-

DEAD

C.W.L. RESEARCH SECTION REPORTS

DEAD

DEAD

DEAD

CENTRAL REGISTRY	DATE	P.A. OR S.F.	INITIALS	REFERRED TO	FOR REMARKS	INITIALS	DATE
(If purpose for which referred cannot be expressed on one line, add minute to file and enter same "P.O. Minute")							
APR 19 1945	14 Apr	P. 4	hwh	DCWIS	PER REGULATION C.R. APR 19 1945		
				DCWIS	PER REGULATION C.R. MAY 19 1945		
MAY 21 1945	21-5-45	PA	SPS	DCWIS	returned to	SPS	19-5-45
JUN 1 1945	1-6-45	PA	SPS	DCWIS	PER REGULATION C.R. JUN 13 1945		
SEP 27 1945	26-9-45	PA	SPS	DCWIS	PER REGULATION C.R. SEP 2 1945		
FEB 5 1947	7/2/47	PA	SPS	as R/S	PER REGULATION C.R. FEB 5 1947		

NOTICE

1. Files should be retained no longer than absolutely necessary. If a file is frequently needed at short intervals, it is better to D.F. it for two or three days than keep it out of Central Registry indefinitely. This ensures it being completed and kept in order, and also gives other offices an opportunity to use same.
2. Central Registry should be notified whenever a file is passed direct to another branch.
3. All outgoing letters should bear the official file number.
- PASS THIS FILE IN ENVELOPE**

PASS THIS FILE IN ENVELOPE

000170

H.Q. 14354-29-5-2 1812
205

DEAD

VOLUME 3 FOLLOWS
23/3/46

NO FURTHER CORRESPONDENCE TO BE PLACED ON THIS FILE

RESTRICTED

MEMORANDUM

DEPARTMENT OF NATIONAL DEFENCE

HQS. 4352-2 (12542) (D.C.S.)

OTTAWA 12 December 1945.

Chemical Warfare Laboratories Research Section Report #59

Herewith please find m/n report for your information and return please.

for *Arch/capt.*
(D.J. Dewar) Major,
for Director of Chemical Warfare & Smoke,



RESTRICTED

MEMORANDUM

TO: D.O.H.S.

DEPARTMENT OF NATIONAL DEFENCE

HQS. 4354-5-2 (M2542) (DC188)

OTTAWA
12 December 1945.

[illegible]

Chemical Warfare Laboratories Research Section Report #59

Herewith please find a report for your copy of letter and enclosed. Please
 acknowledge and return please.

1000/cp

* (U.J. Peter) Major,
 for Director of Chemical Warfare,
 Ottawa,
 DEC 13 1945
 CANADA.

HQS 4354-24-2-5 (DCW&S)
HQS 4354-27-5-2

14 September, 1945.

Commander Canadian Army Staff,
2222 'B' Street, N.W.,
Washington, D.C.

Attn: Arms & Requirements Branch

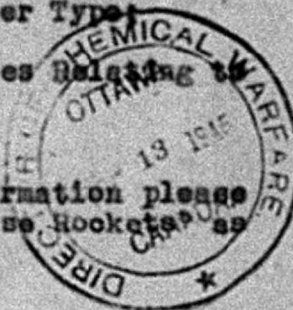
Coloured Smoke Rockets

Reference your teletype 3081 requesting samples of coloured smoke rockets for Australia.

The Superintendent of Research, CW Laboratories has advised that a shipment of rockets in four boxes and one carton was made by railway express 12 September, 1945. These boxes contain:

- (1) 12 rockets - Orange Smoke Generator, Parachute Type
- (2) 12 rockets - Brown Smoke Puff, Burster Type
- (3) 8 rockets - Brown Smoke Puff, Burster Type
- (4) 8 rockets - Orange Smoke Generator, Parachute Type;
1 rocket - Violet Smoke Puff, Burster Type;
1 rocket - Stick - Jointed;
1 envelope - Containing "Special Notes Relating to these Rockets"
- (5) 40 Rocket Sticks.

Forwarded herewith for your information please find copy of "Special Notes Relating to these Rockets" as enclosed in box No. 4.



DJD
(D.J. Dewar) Major
for Director of Chemical Warfare & Smoke.

DJD/sm
Enc.

96



110 435 4-29-5-2
4354-24-2-5
DJD

VER V CIC NR 9
FROM QUARTERMASTER EXP STN SUFFIELD ALTA 041400
TO D C W AND S OTTAWA ONT
GR 33 BT

FES 9077 04 SEPT UNCLASS RE FES 9024 SHIPPED EXPRESS WARRANT
NO 1039781 DATED 4 SEPT 1945

BT SO 041550S B
0418054

MEMORANDUM

TO: Cpt. of Research,
CH Laboratories.

DEPARTMENT OF NATIONAL DEFENCE

R.N. 4354-24-2-5 (DUNN)

4354-24-2-5-2

DATE: 30 AUG 65

Coloured Smoke Signals

Reference RND 4354-24-2-5 29-5-2 dated
further to conversations Major Dewar - Captain

Experimental Station, Buffalo, has advised 7-30 1945
9024, that shipment of these Coloured Smoke Signals will be
made 30 AUG 45.

Could you please advise by phone as soon as signals
are received by CH Laboratories.



(D.J. Dewar) Major
for Director of Chemical Warfare & Smoke

DJD/am

ARMY MESSAGE

(OUTGOING)

CLEAR

FILE # HQ 4354-24-2-5
(DCMG)

PLACE

OTTAWA ONT

DATE

27 AUG 45

CHIEF SUPERINTENDENT
EXPERIMENTAL STATION
SUFFIELD ALTA

CHEMWAR 6230

UNCLASSIFIED (.) RE TEL CHEMWAR 6192 ADVISE DATE OF SHIPMENT

CHEMWAR



ORIGINATOR'S INSTRUCTIONS

THIS MESSAGE MAY BE SENT AS WRITTEN BY ANY MEANS

EXCEPT INCLUDING { WIRELESS

D.J. Dower

DEGREE OF PRIORITY

Deferred

TIME OF ORIGIN

1105

SIGNED (D.J. Dower) Major, for DCMG

COPY 2



CANADA

QUOTE NO. CWL-15-2-5

CONFIDENTIAL

54324-29-5-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 1 Aug 45.
National Research Council Bldg.

D.C.W. & S.,
New Army Bldg.,
Ottawa.

We are enclosing for your information Copies
No. of the following:
Copies 1,2,5,6,7,8,9,10,13,14

Research Section Report No. 55. Development of a
Protective Container for carbon monoxide
in air at high humidity

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

BL/MB
Encl.

1629

B. Lang
(Miss) B. Lang,

for Superintendent of Research.



*Wk. - sent
DJB
3/9/45*

32

TO: DSD(W)

M E M O R A N D U M

CONFIDENTIAL

DEPARTMENT OF NATIONAL DEFENCE

H.Q.S.4354-29-5-2(M1741)(DCW&S)

DATE: 27 Jul 45

CWL Research Section Report

Forwarded herewith for your retention please
find Copy No. 32 of Research Section Report No. 54.

DJD/sm
Attach.

DJD
(D.J. Dewar) Major
for Directorate of Chemical Warfare & Smoke

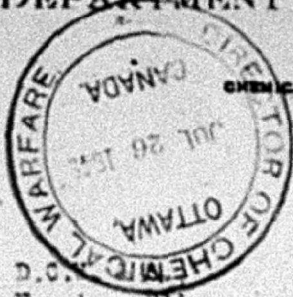
54354-29-5



order No. CNL-S- 15-2-5

CONFIDENTIAL

DEPARTMENT OF NATIONAL DEFENCE
ARMY



CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA. 25 Jul 45.

National Research Council Building.

D.C.
New Army Bldg.,
Ottawa.

Attn: Major D.J. Dewar

(~~original~~)
We are forwarding (for your retention)
the following documents: For retention of D.S.D.(W)

*ack
copy 32 → DSD(W)
"Defence against Gas"
returned to Cwl
26 7/45*

Copy 32 - Research Section Report No. 54
(13.6.45) Generator, coloured
smoke, Canadian pattern

Defence against Gas by Lt.-Col. E.A. Flood
(on loan)

May receipt be acknowledged, please,
by signing and returning the duplicate copy of this
letter.

BL/MB

B. Lang.
(Miss) E. Lang.
for Superintendent of Research.

5435v - 29-5-2

CONFIDENTIAL

QUOTE NO. CML-15-2-5



DEPARTMENT OF NATIONAL DEFENCE
ARMY
CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 19 Jul 45
National Research Council Bldg.

D.C.W. &S.,
New Army Bldg.

We are enclosing for your information Copies
of the following:
No. Copies 1,2,5,6,7,8,9,10,13,14



Research Section Report No. 14
Coloured smoke

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

B. Lang
(Miss) B. Lang

BL/MB
Encl.

for Superintendent of Research.

DSD(W)

S.4354-27-5-2(DCW & S)
Confidential M-1472
20 Jun

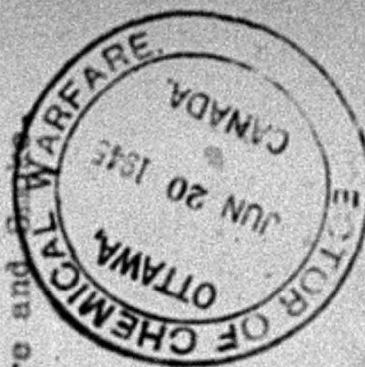
5

CWL Research Section Report

Forwarded herewith for your retention please find
copy No.30 of CWL Research Section Report No. 53.

DJD
(D.J. Decker) Major
for Director of Chemical Warfare and

DJD:fl





QUOTE NO. CWL-15-2-5

CONFIDENTIAL

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 18 June, 1945,
National Research Council Bldg.

D.C.W. & S.,
New Army Bldg.,
O t t a w a.

Attention: Major D.J. Dewar

No. We are enclosing for your information Copies
of the following:

Copies 1-2, 5-10, 13-14
Research Section Rept. No. 53. Rocket Smoke Signals.

Copies 1-2, 5-10, 13-14, 29
Development Section Rept. No. 108. The Behaviour of
U.S. Anti-Gas Protective Equipment under Cold
Weather Conditions.

ack + dist
dfb
19/45
MR
Encl.
May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

B. Lang
(Miss) B. Lang
for Superintendent of Research.

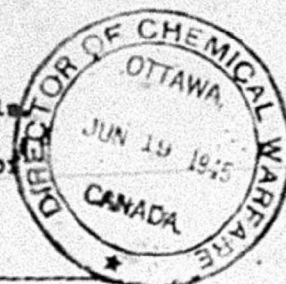
Superintendent of Research,
Chemical Warfare Laboratories,
National Research Council Building,
Ottawa, Ontario.

File: 15-2-5

Date: 18 June 45

No. I hereby acknowledge receipt of Copies
of the following:

Copies 1-2, 5-10, 13-14
Research Section Rept. No. 53. Rocket Smoke Signals
Copies 1-2, 5-10, 13-14, 29
Development Section Rept. No. 108. The Behaviour of
U.S. A/G Protective Equipment under Cold Weather
Conditions.



Nat. Def. A-166-A
1,000M - 3-41 (6/25)
H.Q. 1775-79-376

Date

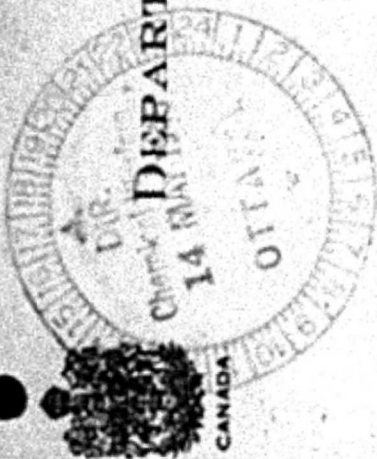
Signed

Form CWL F.2

54354-29-5-2

QUOTE No. CML-15-2-5

SECRET



DEPARTMENT OF NATIONAL DEFENCE
ARMY
CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 14 May 45.
National Research Council Bldg.

D.C.W. & S.,
New Army Bldg.,
Ottawa, Ont.

Attn: Major D.J. Dewar

We are enclosing for your information Copies
of the following:

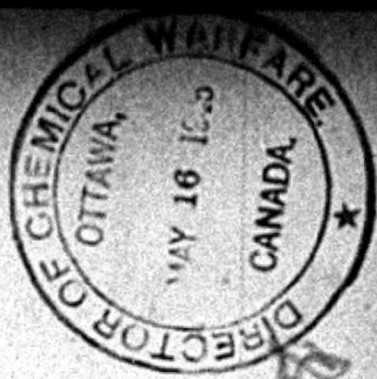
Copies 1, 2, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 34, 36

Research Section Report No. 52. Storage Stability of Flame-Thrower
Fuels Thickened with Aluminum Stearate.

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

BL/MB
Encl.

B. Lang
(Miss) B. Lang,
for Superintendent of Research,



MEMORANDUM

~~SECRET~~
~~CONFIDENTIAL~~
~~RESTRICTED~~

DEPARTMENT OF NATIONAL DEFENCE

TO: DSD(W)

HQS 4354-29 -5-2

(DCW & S)
(M 942)

DATE 17 Apr 45

Reports

Forwarded herewith please find one
copy of the following reports:-

CWL Research Section Report No 51

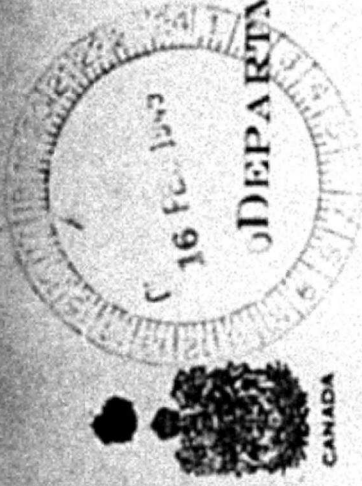


DJD/MT
Enc.

D. J. Dewar
(D. J. Dewar), Major,
for DCW & S.

77

HQS. 4354-29-5-2



QUOTE NO. CWL-15-2-5

SECRET

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 15 Feb 45.
National Research Council Bldg.



D.C.W. & S.,
New Army Bldg.,
Ottawa, Ont.

Attn: Major D.J. Dewar

We are enclosing for your information Copies
of the following:

No.

Copies 1, 2, 5, 6, 7, 8, 9, 10, 13, 14

Research Section Report No. 50. Preparation of the Methiodides
of N-methylcarbamates of
(a) Hydroxy-dialkylamino-derivatives of Diphenylmethane
(b) Hydroxyalkylamines

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

EL/MB
Encl.

for Superintendent of Research,

B. Lang
(Miss) B. Lang

76

COPY

AIR MAIL

Document divulgué en vertu de la Loi sur l'accès à l'information

CONFIDENTIAL
Quote No. 55/4150/9 (SD 11)
54354-29-5-2

CANADIAN MILITARY HEADQUARTERS

303657

LONDON

27 Mar 45

The Secretary
Department of National Defence
Ottawa Canada

Attn DCW & S

Use of Furfural in
Purification of Levinstein H

1 Reference your HQS 4354-30-1 (DCW & S) (M-708), dated 21 Mar 45 and enclosed DO Letter.

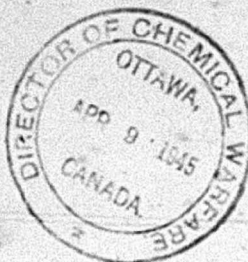
2 Enclosed herewith is a copy of Z 19213, dated 23 Mar 45, for your information and retention.

3 No record of a DO letter from Lt col Flood on the m/n subject can be found. An official reply to Col Zanetti's suggestion would be appreciated, in order that Ministry of Supply may clear their records.

AGO/JR

CW 3514

Sgd A C Campbell, Maj.
for (P J Montague) Lieutenant General
Chief of Staff
Canadian Military Headquarters



000187

C O P Y

Register No

Minute Sheet No

Canadian Military Headquarters,
S.D.11.

Z 19213

Use of Furfural in Purification
of Leivinstein H

You will no doubt have noted that in the notes of the last meeting of the Chemical Sub Committee (Action 1 on page 4 of the Notes sent out under the reference Z 18379 refers) reference was again made to the suggestion made by Colonel Zanetti at the meeting held on the 9th September, 1943, that the attention of the Canadian CW Authorities be drawn to the possible use of Furfural in the purification of Leivinstein H.

This subject was raised subsequently at the meeting on 3rd March, 1944, when Major Naldrett stated that an enquiry with regard to this suggestion had been cabled to Canada and an early reply was expected.

As was noted at the last meeting the potential value of the suggestion to use furfural had probably not much significance at this stage in view of the policy to purify Leivinstein H by distillation. We should be glad, however, to have confirmation from you on this point so that the action may be cleared finally in order to make our records complete. Your remarks would be very much appreciated.

(Sgd) A J L LAWRENCE

C.D.R.2. Savoy Hill House,
Tem. Bar 4411 Extn. 47
23.3.45.
AJLL/MGS

34954 - 29-5-2

SECRET

QUOTE NO. CML-15-2-5

DEPARTMENT OF NATIONAL DEFENCE
ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 24 Jan 45.
National Research Council Bldg.

D.C.W. & S.,
New Army Bldg.,
Cartier Square,
Ottawa, Ont.

Attn: Major D.J. Dewar

We are enclosing for your information Copies
of the following:

Copies 1,2,5,6,7,8,9,10,13,14,15-19.

Research Section Rept. No. 45. Synthesis of Fluorine Analogs of
1,1-Bis(p-Chlorophenyl) 2,2,2-Trichloroethane (D.D.T.)

Research Section Rept. No. 47. Development of a Protective
Container for Carbon Monoxide in Air at High Humidity.
III. Activity of Silver Permanganate on Kieselguhr under
various experimental conditions.

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

D. F. H. Miller

(Miss) B. Lang,
for Superintendent of Research.

HL/MB
Encl.

1118

000189

*ack
dust
25/1/45*

DJB

*34954-29-5-2
12-45
260*

5434-29-5-2

CWL-15-2-5

SECRET

DEPARTMENT OF NATIONAL DEFENCE
ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 27 Nov 44.
National Research Council Bldg.

D.C.W. & S.,
New Army Bldg.,
Cartier Square,
Ottawa.

Attn: Major D.J. Dewar

We are enclosing for your information Copies
of the following:

- Copies 1 & 2 (for Lt.-Col. J. Morris) Development Sec. Note 72. Meeting
of the Canadian Packaging Committee Held on the 21 Nov 44...
→ Copies 2 & 3. Research Section Note No. 41. Progress Rept. on Thickeners
for Flame Thrower Fuels.
Copies 1, 2, 5, 6, 7, 8, 9, 10, 13, 14. Research Section Rept. No. 46. Study of the
formation of the N-methylcarbamate of 2-methyl-5-dimethylamino-
phenol and of meta-diethylaminophenol.
Copies 5, 6, 7, 8, 9, 10, 29, 32, 33. - Quarterly Progress Summary August, September,
and October, 1944.

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

HL/MB

Encl.

B. Lang
(Miss) B. Lang,

for Superintendent of Research

H.Q.S. 4354-29-5-2

M.F.B. 387J
MM-11-41 (243)
H.O. 2011-48

FALSE DOCKET

No. 1

DEPARTMENT OF NATIONAL DEFENCE OTTAWA, CANADA

C. W. Reports - C. W. Research Section

CROSS REFERENCE

CENTRAL SECURITY	Date	P.A. or R.F.	Initials	Furnished to	For Remarks	Initials	Date
AUG 10 1944	Aug 47 Pa	M. DMT	(If purpose for which referred cannot be ascertained on one line, add minute to file and enter here "See Minute.")				
						2-6-B	3

If purpose for which referred cannot be determined on one line, add minute to the end of the line and enter here "Sub Minute."

AUG 10 1944 9 Aug 44 PA

Pa

Dr. M. T.

1871

000191

C.R.

Correspondence in this file
 number 245167, letters addressed
 to Officer Command
 Combined Ops School
 Courtenay, B.C.
 and Officer Command
 S-17 Inf School
 Vernon, B.C.

have been removed by DMT.

10/8/44.

Records
 Amended.

MBR

CH/rof1

J.P. Milligan Capt
 for DMT.

9 Aug 44

226A
 2



CANADA

QUOTE NO. CWL-15-2-5

DEPARTMENT OF NATIONAL DEFENCE

ARMY

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 20 Oct. 44



D.C.W. & S.,
New Army Building,
Cartier Square,
Ottawa.

Attention: Major D.J. Devar.

We are enclosing for your information Copies
of the following:

No.

Copies 1, 2, 5, 6, 7, 8, 9, 10, 13, 14.

Research Section Report No. 45. Mustard Thickening.

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

BL/HAT
Encl.

(Miss) B. Lang,
for Superintendent of Research.

msl

4334-29-5-2 VOL 3

SECRET
H.Q.S.

CROSS REFERENCE

C.W. REPORTS - C.W.L. RESEARCH
SECTION REPORTS.

DEAD

CENTRAL REGISTRY	DATE	P.A. OR S.F.	INITIALS	REFERRED TO	FOR REMARKS	INITIALS	DATE
APR 18 1946	17 April 1946	PA	W.B. Brown	APR 8 1946			
APR 18 1946	3/2/47	PA	W.B. Brown	APR 8 1946			
FEB 4 1947							

NOTICE

1. Files should be retained no longer than absolutely necessary. If a file is frequently needed at short intervals, it is better to B.F. it for two or three days than keep it out of Central Registry indefinitely. This ensures it being completed and kept in order, and also gives other offices an opportunity to use same.
2. Central Registry should be notified whenever a file is passed direct to another branch.
3. All outgoing letters should bear the official file number.
- PASS THIS FILE IN ENVELOPE**

PASS THIS FILE IN ENVELOPE

000194



NOTE No. CWL-15-2-5

CONFIDENTIAL

DEPARTMENT OF NATIONAL DEFENCE
ARMY

4354-29-5-2

CHEMICAL WARFARE LABORATORIES

OTTAWA, CANADA, 26 Mar 46.
National Research Council Bldg.

D.C.W. & S.

Attention: Major Klaehn

We are enclosing for your information Copies
of the following:

Copies 1-2, 5-6, 7-10, 13-14, 15-19.

Research Section Rept. 61. Development of a
protective container for carbon monoxide in air at high humidity.
V. Activity of silver permanganate
on various metallic oxide catalysts.

May receipt of the enclosure be acknowledged,
please, by signing and returning the lower portion of this
letter.

BL/MR
Encl.

B. Lang
(Miss) B. Lang,
for Superintendent of Research.



91

Handwritten notes:
4354-29-5-2
20/3/46
B. Lang

CONFIDENTIAL

HQS. 4354-29-5-2
(DCWAS) (N-208)

Ottawa, 2 March, 6

Chief Technical Division,
Edgewood Arsenal,
Maryland, U.S.A.

CW Lab Report

Forwarded herewith for your information and
retention please find CWL Research Section Report No. 56
- Multiple Projector for APV's.

DRS/deg.



(R.A. (Elsahn) McRobb)
for Director of Chemical Warfare & Smoke.

CONFIDENTIAL

HQS 4354-29-5-2
(N. 358) (DCH&S)

2 May 6

Chief Technical Division, CC-CMS,
Attn: Chief Information Div.,
Edgewood Arsenal, Maryland.

CWL Reports

Herewith attached please find copy Nos.
15 to 19 of CWL Research Section Note No. 45
dated 12 Apr 46 for your information and retention.



DRS/kc

J. A. K.
(R.A. Klaehn) Major,
for Director of Chemical Warfare & Smoke.

COPY

Gerrard 6933/Ex:883

MINISTRY OF SUPPLY,

SHELL WORK HOUSE,

LONDON, W.C. 2.

B.663(C.D.R.2)

QAW/GN

6 May, 1946.

D.C.W. & S.,
Chemical Warfare Laboratories,
Ottawa.

The ingenious multiple projector described in C.W.L. Research Section Report No.56 has evoked considerable interest and we look forward to hearing of further developments. There are, however, several points indicated below in which development has diverged from our own ideas.

The tactical employment envisaged appears to differ somewhat from current ideas here in that a range of 500 yards is considered desirable. The normal requirement of a multiple projector for A.F.V.'s for the War Office is for immediate screening by smoke for self-protection or for signalling by coloured smoke. For this purpose a range of 500 yards is not only unnecessary but disadvantageous in view of the time of flight of the projectile. We should be interested to hear your further views on this question.

There is some divergence of opinion regarding use of a spigot type projector which has also been suggested here. Porton consider it to be a major defect in the design owing to its vulnerability to damage. This is now under consideration by the War Office.

Another query is whether the action of the nose attachment may cause mal-functioning on hard ground or even at low trajectories on soft ground. The type of ground on which the trials were carried out is not stated but we should welcome further details.

It is noted that improvement in several respects is anticipated and in this connection it is suggested that water-tightness of the arrangement needs to be considered while the rather complicated 5 coil electric igniting arrangement and nose attachment may prove difficult to produce in quantity.

(Sgd.) F.C. Morrison,

For Controller, Chemical
Defence Development.

MEMORANDUM

TO: Supt. of Research,
C.W.L.

DEPARTMENT OF NATIONAL DEFENCE

H.Q.S. 4354-30-1 (DOMAS)

H.Q.S. 4354-29-5-2

OTTAWA, 6 Jun 46.

C.W.L. Research Section Report No. 56
Canadian Multiple Projector for A.F.V.'s.

Attached hereto is a copy of the official
C.O.D.D., Ministry of Supply, comments on the m/n
development as forwarded from C.W.H.Q.

2. The opinion expressed in this letter is
not shared by A1, Ministry of Supply, who have
shown considerable interest in the project and
who are now making up a model of slightly less
complicated design. The A1 design embodies
the tail units of rifle-launched grenades, but
has no nose attachment.

3. It is the unanimous opinion of S.W.V.2,
War Office, and Ministry of Supply (A1 and C.O.D.D.)
that the long range is a distinct disadvantage due
to the time of flight. In this respect it was
the user's opinion in 1st Canadian Army that the
three second delay of the No. 80 grenade was
satisfactory.

4. May we have your comments please on the
attached letter.



(R.A. Klachn) Major,
for D.C.W. & S.

MEMORANDUM

DEPARTMENT OF NATIONAL DEFENCE

TO: Superintendent of Research,
Chemical Warfare Laboratories,
Ottawa.

HQS. 4354-29-5-2 (DCWAS)

OTTAWA, 14 June 46

CWL Research Section Report No.59

Reference the m/n Report. The following comments have been received from the Officer i/c C.D.D. (U.K.):-

"With regard to CWL Research Section Report No.59, which was read with interest, it is suggested that the comparative lack of effectiveness of the aerosol from the Hochberg-La Mer generator against moths have been due to some extent to poor pick-up of the aerosol droplets. It is possible that the droplet size was too small in relation to the size of the moth and the impaction efficiency was low. If the investigation is continued it is suggested, therefore, that it might be worth while doing laboratory experiments to determine the optimum size of droplet for killing moths."

f. AK.
(R.A. Klaehn) Major
for Director of Chemical Warfare & Smoke.

