



State of New Jersey

CHRISTINE TODD WHITMAN  
Governor

DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE  
POST OFFICE BOX 7068  
WEST TRENTON NJ 08628-0068

JOHN J. FARMER, JR.  
Attorney General

**CERTIFICATION OF ANALYSIS**  
**0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION**

**ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION:** Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

**MANUFACTURER:** Guth

**ANALYSIS DATE:** 12/14/99

**BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER:** 99310

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1215 to 0.1229 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is November 10, 2000.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

*Thomas A. Brettell*  
Thomas A. Brettell, Ph.D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 14th day of December, 1999.

*Mary E. McLaughlin*  
Notary

Rev. 3/94

MARY E. McLAUGHLIN  
Notary Public of New Jersey  
My Commission Expires Dec. 24, 2003





State of New Jersey

RISTINE TODD WHITMAN  
Governor

DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE  
POST OFFICE BOX 7068  
WEST TRENTON NJ 08628-0068

PETER VERNIERO  
Attorney General

CERTIFICATION OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth ANALYSIS DATE: 6/02/99

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 99081

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1207 to 0.1227 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is April 21, 2000.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

Thomas A. Brettell, Ph.D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 3rd day of June, 1999.

MARY E. McLAUGHLIN  
Notary Public of New Jersey  
My Commission Expires Dec. 24, 2003

rev. 3/94





State of New Jersey

CHRISTINE TODD WHITMAN  
Governor

DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE  
POST OFFICE BOX 7068  
WEST TRENTON NJ 08628-0068

PETER VERNIERO  
Attorney General

COLONEL CARL A. WILLIAMS  
Superintendent  
TELEPHONE: (609) 882-2000

ADDRESS REPLY TO:

CERTIFICATION OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

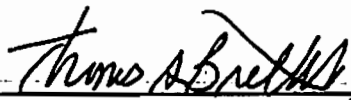
MANUFACTURER: Guth ANALYSIS DATE: 7/27/98

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 98180

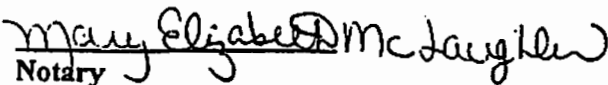
Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1192 to 0.1212 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is June 5, 1999.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

  
Thomas A. Brettell, Ph.D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 19<sup>th</sup> day of August, 1998.

  
Notary

MARY ELIZABETH McLAUGHLIN  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires Dec. 20, 1998

rev. 3/94





State of New Jersey

CHRISTINE TODD WHITMAN  
Governor

DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE  
POST OFFICE BOX 7068  
WEST TRENTON NJ 08626-0068

PETER VERNIERO  
Attorney General

COLONEL CARL A. WILLIAMS  
Superintendent  
TELEPHONE: (609) 882-2000

ADDRESS REPLY TO:

CERTIFICATION OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth ANALYSIS DATE: 1/30/98

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 98090

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1199 to 0.1230 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is January 12, 1999.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

*Charles G. Tindall*  
Charles G. Tindall, Ph.D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 4<sup>th</sup> day of February, 1998.

*Sam Mullay*  
Notary  
SAM MULLAY  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires March 8, 1997

rev. 3/94





State of New Jersey

CHRISTINE TODD WHITMAN  
Governor

DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE  
POST OFFICE BOX 7068  
WEST TRENTON NJ 08628-0068

PETER VERNIERO  
Attorney General

COLONEL CARL A. WILLIAMS  
Superintendent  
TELEPHONE: (609) 882-2000

ADDRESS REPLY TO:

CERTIFICATION OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth ANALYSIS DATE: 3/25/97

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 97060

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1214 to 0.1228 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is February 13, 1998.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

Charles G. Tindall, Ph.D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 1st day of April, 1997.

Notary SAM MULLAY  
NOTARY PUBLIC  
MULLAY

rev. 3/94





State of New Jersey

CHRISTINE TODD WHITMAN  
Governor

DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE  
POST OFFICE BOX 7068  
WEST TRENTON NJ 08628-0068

PETER VERNIERO  
Attorney General

COLONEL CARL A. WILLIAMS  
Superintendent  
TELEPHONE: (609) 882 2000

ADDRESS REPLY TO:

CERTIFICATION OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth ANALYSIS DATE: 12/17/96

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 96250

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1209 to 0.1225 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is October 9, 1997.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

*Charles G. Tindall*  
Charles G. Tindall, Ph.D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 20th day of December, 1996.

*Sam Mullay*  
Notary

rev. 3/94





State of New Jersey

CHRISTINE TODD WHITMAN  
Governor

DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE  
POST OFFICE BOX 7068  
WEST TRENTON NJ 08625-0065

DEBORAH T. PORITZ  
Attorney General

COLONEL CARL A. WILLIAMS  
Superintendent  
TELEPHONE: (609) 862-2000

ADDRESS REPLY TO:

CERTIFICATION OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth ANALYSIS DATE: 5/30/96

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 96080

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1228 to 0.1241 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is February 1, 1997.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

*Charles G. Tindall*  
Charles G. Tindall, Ph.D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 31st day of May, 1996.

*Sam Murray*  
Notary SAM MURRAY  
NOTARY PUBLIC  
My Commission Expires

rev. 3/94





State of New Jersey

CHRISTINE TODD WHITMAN
Governor

DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF STATE POLICE
POST OFFICE BOX 7068
WEST TRENTON NJ 08628-0068

DEBORAH T. PORITZ
Attorney General

COLONEL CARL A. WILLIAMS
Superintendent
TELEPHONE: (609) 882-2000

ADDRESS REPLY TO:

CERTIFICATION OF ANALYSIS
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth ANALYSIS DATE: 5/30/96

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 96080

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1228 to 0.1241 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is February 1, 1997.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

Handwritten signature of Charles G. Tindall

Charles G. Tindall, Ph.D.
Chief Forensic Scientist
Division of State Police

Sworn to and subscribed before me this 31st day of May, 1996.

Notary SAM MULLAY
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 12/31/97

rev. 3/94







State of New Jersey

CHRISTINE TODD WHITMAN
Governor

DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF STATE POLICE
POST OFFICE BOX 7068
WEST TRENTON NJ 08628-0068

DEBORAH T. PORITZ
Attorney General

COLONEL CARL A. WILLIAMS
Superintendent
TELEPHONE: (609) 882-2000

ADDRESS REPLY TO:

CERTIFICATION OF ANALYSIS
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth ANALYSIS DATE: 2/15/96

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 95402

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1227 to 0.1233 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is October 1, 1996.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

Handwritten signature of Charles G. Tindall

Charles G. Tindall, Ph.D.
Chief Forensic Scientist
Division of State Police

Sworn to and subscribed before me this 16th day of February, 1996.

Handwritten signature of Notary
Notary

rev. 3/94

FLORAL SUYDAM
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires May 12, 1999





State of New Jersey  
DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE

RIVER ROAD  
POST OFFICE BOX 7088 WEST TRENTON, NJ 08628-0088  
TELEPHONE: (609) 882-2000

ADDRESS REPLY TO:

DEBORAH T. PORITZ  
ATTORNEY GENERAL

COLONEL CARL A. WILLIAMS  
SUPERINTENDENT

CERTIFICATION OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth ANALYSIS DATE: 9/25/95

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 95280

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.1232 to 0.1243 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is June 1, 1996.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

Charles G. Tindall  
Charles G. Tindall, Ph.D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 2nd day of October, 1995.

Sam Mullay  
Notary  
SAM MULLAY  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires March 8, 1998

rev. 3/94





**State of New Jersey**  
**DEPARTMENT OF LAW AND PUBLIC SAFETY**  
**DIVISION OF STATE POLICE**  
 RIVER ROAD  
 POST OFFICE BOX 7068 WEST TRENTON, NJ 08628-0068  
 TELEPHONE: (609) 882-2000

DEBORAH T. PORITZ  
 ATTORNEY GENERAL

ADDRESS REPLY TO:

COLONEL CARL A. WILLIAMS  
 SUPERINTENDENT

CERTIFICATION OF ANALYSIS  
 0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth ANALYSIS DATE: 1/25/95

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 94381

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.120 to 0.122 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is October 1, 1995.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

Charles G. Tindall, Ph.D.  
 Chief Forensic Scientist  
 Division of State Police

Sworn to and subscribed before me this 31<sup>st</sup> day of Jan., 1995.

Notary **GEORGE M. HICKMAN**  
 NOTARY PUBLIC OF NEW JERSEY  
 My Commission Expires Oct. 9, 1997

rev. 3/94



Air • Fuel • Water • Food • Wastes  
**CERTIFICATE OF ANALYSIS**

*[Handwritten mark]*

NATIONAL DRAEGER, INC.  
 101 Technology Drive  
 Pittsburgh, PA 15275

Lab I.D. No. : 84-433  
 Date Received: 08/26/94  
 Account No. : BN017  
 Invoice No. : 03208  
 September 8, 1994

Attention: Mr. Tom Couchenour

SUBJECT: P.O. NO. 3538 - LOT NO. 9310701502 - MSR NO. 002059  
 BREATH TEST KITS FOR ANALYSIS

<u>TESTS</u>	<u>SPEC</u>	<u>RESULTS</u>	<u>TECH/DT</u>
Silver Nitrate	(0.250 +/- 0.025 mg/ml)	0.230 mg/ml	JR 9/08
Volume	(3.0 + 0.1/-0.0 ml)	3.04 ml	DD 9/02
Potassium Dichromate	(0.250 +/- 0.013 mgs/ml)	0.251 mg/ml	EV 9/02
Specific Gravity	(1.53 +/- 0.01 @ 23 Deg. C)	1.52 g/ml	DD 9/02
Sulfuric Acid Normality	(19.1 to 19.9)	19.25 N	DD 9/02
Diphenylcarbazide Dichromate Test		Present	DD 9/02
SP XIX Test for Sulfate		Present	DD 9/02

Approved By:

*David J. Davis*  
 Laboratory Director

DT:tf

The data and other information contained on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon the condition that it is not reproduced wholly or in part for advertising or other purposes without written approval from the laboratory.  
 USDA-EPA-NIOSH testing • Food Sanitation Consulting • Chemical and Microbiological Analyses and Research

*[Handwritten signature]*

# Microbac Laboratories, Inc.

Schiller Division 449 Rochester Road, Pittsburgh, Pennsylvania 15237-1733

412/369-4830 • Fax: 412/369-4832

Air • Fuel • Water • Food • Wastes

## GERTIFICATE OF ANALYSIS



NATIONAL DRAEGER, INC.  
101 Technology Drive  
Pittsburgh, PA 15275

Attention: Mr. Richard Warburton

Lab I.D. #: 34-213  
Date Rec'd.: 03-16-94  
Account #: BN017  
Invoice #: 00810  
March 25, 1994

SUBJECT: P.O. # - CODE 39HS; 94-031080  
LOT # - 9310701501 ✓

<u>TESTS</u>	<u>SPEC.</u>	<u>RESULTS</u>	<u>TECH/DI</u>
Silver Nitrate	(0.250 +/- 0.025 mg/ml)	0.252 mg/ml	JR 3/25
Volume	(3.0 + 0.1/-0.0 ml)	3.02 ml	DD 3/24
Potassium Dichromate	(0.250 +/- 0.013 mgs/ml)	0.255 mg/ml	DA 3/25
Specific Gravity	(1.53 +/- 0.01 @ 23 Deg. C)	1.523 g/ml	DD 3/25
Sulfuric Acid Normality	(19.1 to 19.9)	19.4 N	DD 3/24
Diphenylcarbide Dichromate Test		Positive	DD 3/24
USP XIX Test for Sulfate		Positive	DD 3/24

Approved by

*Dan S. Dan*  
Laboratory Director

DJD/pr

The data and other information contained on this and other accompanying documents, represent only the sample(s) analyzed and is rendered upon the condition that it is not reproduced wholly or in part for advertising or other purposes without written approval from the laboratory.

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State of New Jersey  
DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE

RIVER ROAD  
POST OFFICE BOX 7068 WEST TRENTON, NJ 08628-0068  
TELEPHONE: (609) 882-2000  
FAX: (609) 882-6920

DEBORAH T. PORITZ  
ATTORNEY GENERAL

CERTIFICATION OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: GUTH ANALYSIS DATE: March 9, 1994

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 94041

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of .121 to .123 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is November 1, 1994.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

DATE: 3/14/94

Charles G. Tindall  
Charles G. Tindall, Ph.D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 14th day of March, 1994.

Sam Mullay  
Notary **SAM MULLAY**  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires March 2, 1993

rev. 3/94



## MATERIAL SAFETY DATA SHEET:

Breathalyzer Test Kit Solution

### SECTION I

Supplier:	National Draeger, Inc.	Emergency Telephone Number:	(412) 787-8383
Address:	101 Technology Drive	Telephone Number for Information:	(412) 787-8389
	Pittsburgh, PA 15275	Fax Number:	(412) 787-2207

### SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	CONCENTRATION	CAS NO.	OSHA PEL	ACGIH TLV
Sulfuric Acid	61.5%	7664-93-9	1.0 mg/m <sup>3</sup>	1.0 mg/m <sup>3</sup>
Potassium Dichromate	0.016%	7778-50-9	0.1 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>
Silver Nitrate	0.016%	7761-88-8	0.01 mg/m <sup>3</sup>	0.01 mg/m <sup>3</sup>

### SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT:	146°C
MELTING POINT:	-35°C
SPECIFIC GRAVITY (H <sub>2</sub> S = 1):	1.53 @20°C
EVAPORATION RATE (Butyl Acetate = 1):	>1
SOLUBILITY:	Complete
VAPOR PRESSURE:	14mm Hg @20°C
VAPOR DENSITY:	0.7 (water)
APPEARANCE AND ODOR:	Thin, clear, yellow liquid with no odor

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Non combustible
EXTINGUISHING MEDIA:	Use dry chemical or carbon dioxide. For large fires, use water spray, fog, or regular foam. (1990 Emergency Response Guidebook, DOT P 5800.5).
SPECIAL FIRE FIGHTING PROCEDURES:	Do not get water inside container. Do not get solid stream of water on spilled material. Move container from fire area if you can do it without risk. Apply cooling water to side of containers that are exposed to flames until well after fire is out. Firefighters should be equipped with self-contained breathing apparatus with full facepiece operated in pressure demand or other positive mode.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Oxidizer: Oxidizers decompose, especially when heated, to yield oxygen or other gases which will increase the burning rate of combustible matter. Contact with easily oxidizable, organic, or other combustible materials may result in ignition, violent combustion, or explosion. Combustion may produce noxious and irritating gases which will require fresh air source in fire fighting.

### SECTION V - REACTIVITY DATA

STABILITY:	Stable
INCOMPATIBILITIES:	Combustible materials, strong alkalis, reactive metals, strong oxidizers, and excessive heat.
HAZARDOUS DECOMPOSITION PRODUCTS:	Thermal decomposition products may include toxic and hazardous oxides of sulfur, silver, and nitrogen.
HAZARDOUS POLYMERIZATION:	Will not occur

### SECTION VI - HEALTH HAZARD DATA

TOXICITY:	<u>Sulfuric Acid:</u>	Severe irritation	
		Carcinogen Status:	None
		Local effects:	Corrosive - Inhalation, skin, eyes, and ingestion.
		Acute Toxicity Level:	Highly toxic by inhalation; moderately toxic by ingestion
		Target Effects:	No data available
	<u>Potassium Dichromate:</u>	Carcinogen Status:	Known human carcinogen (NTP)
		Local Effects:	Corrosive - Inhalation, skin, eyes, and ingestion.
		Acute Toxicity Level:	Toxic by ingestion.
		Target Effects:	Sensitizer - skin
	<u>Silver Nitrate:</u>	Carcinogen Status:	None
		Local Effects:	Corrosive - Inhalation, skin, eyes, and ingestion.
		Acute Toxicity Level:	Highly toxic by ingestion.
		Target Effects:	Poisoning may discolor the skin and eyes (Argyria).

CARCINOGEN STATUS: NTP: YES IARC: YES OSHA: NO



**State of New Jersey**  
**DEPARTMENT OF LAW AND PUBLIC SAFETY**  
**DIVISION OF STATE POLICE**  
**RIVER ROAD**

POST OFFICE BOX 7068 WEST TRENTON, NJ 08628-0068  
 TELEPHONE: (609) 882-2000  
 FAX: (609) 882-6920

DEBORAH T. PORITZ  
 ATTORNEY GENERAL

COLONEL CARL A. WILLIAMS  
 SUPERINTENDENT

CERTIFICATION OF ANALYSIS  
 0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER: Guth Laboratories ANALYSIS DATE: 10/05/94

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 94291

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.122 to 0.125 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is July 1, 1995.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at my direction and under my supervision by personnel of, and at, the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Forensic Science Bureau, in accordance with their professional duties and responsibilities.

DATE: 10/11/94 Charles G. Tindall  
 Charles G. Tindall, Ph.D.  
 Chief Forensic Scientist  
 Division of State Police

Sworn to and subscribed before me this 11<sup>th</sup> day of October, 1994.

Mary Elizabeth McLaughlin  
 Notary

MARY ELIZABETH McLAUGHLIN  
 NOTARY PUBLIC OF NEW JERSEY  
 My Commission Expires Dec. 20, 1998

rev. 3/94





Microbac

## Microbac Laboratories, Inc.

Schiller Division 449 Rochester Road Pittsburgh, Pennsylvania 15237-1733  
412/369-4830 - Fax: 412/369-4832

Air • Fuel • Water • Food • Wastes

## CERTIFICATE OF ANALYSIS

NATIONAL DRAEGER, INC.  
101 Technology Drive  
Pittsburgh, PA 15275

Attention: Mr. Tom Couchenour

Lab I.D. No. : 84-433  
Date Received: 08/26/94  
Account No. : BN017  
Invoice No. : 03208  
September 8, 1994SUBJECT: P.O. NO. 3538 - LOT NO. 9310701502 - MSR NO. 002059  
BREATH TEST KITS FOR ANALYSIS

<u>TESTS</u>	<u>SPEC</u>	<u>RESULTS</u>	<u>TECH/DT</u>
Silver Nitrate	(0.250 +/- 0.025 mg/ml)	0.230 mg/ml	JR 9/08
Volume	(3.0 + 0.1/-0.0 ml)	3.04 ml	DD 9/02
Potassium Dichromate	(0.250 +/- 0.013 mgs/ml)	0.251 mg/ml	EV 9/02
Specific Gravity	(1.53 +/- 0.01 @ 23 Deg. C)	1.52 g/ml	DD 9/02
Sulfuric Acid Normality	(19.1 to 19.9)	19.25 N	DD 9/02
Diphenylcarbide Dichromate Test		Present	DD 9/02
PSP XIX Test for Sulfate		Present	DD 9/02

Approved by:

Laboratory Director

DJD:tf



State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF STATE POLICE

POST OFFICE BOX 7068
WEST TRENTON, NEW JERSEY 08628-0068
(609) 882-2000

ROBERT J. DEL TUFO
Attorney General

COLONEL JUSTIN J. DINTINO
Superintendent

CERTIFICATE OF ANALYSIS
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION
Ethyl alcohol concentration within but not exceeding the range of 0.117 to 0.125
grams per 100 milliliters of solution.

MANUFACTURER/SUPPLIER Guth Laboratories, Inc.

DATE OF ANALYSIS: September 24, 1993

BREATH ALCOHOL SIMULATOR SOLUTION LOT NO. 93320

Representative samples of the above referenced Lot. No. were tested by Gas
Chromatography and found to have an ethyl alcohol concentration range of
0.121 to 0.124 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known
traceable standard for the purposes of conducting periodic tests, pursuant to
N.J.A.C. 13:51-3.4, of approved breath test instruments in this State.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and
attest that the tests and results documented on this Certificate of Analysis were
performed under and at my direction and supervision by personnel of and at the
Forensic Science Bureau of the Division of State Police on properly functioning
and calibrated instruments and equipment. All procedures utilized are accurate,
objective, and performed on a routine basis within the Forensic Science Bureau.

DATE: 9/24/93 Charles G. Tindall

Charles G. Tindall, Ph. D.
Chief Forensic Scientist
Division of State Police

Sworn to and subscribed before me this 24th day of September, 1993

George M. Hickman
Notary

GEORGE M. HICKMAN
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Oct. 9, 1997



State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY

DIVISION OF STATE POLICE

SPECIAL AND TECHNICAL SERVICES SECTION

POST OFFICE BOX 7068

WEST TRENTON, NEW JERSEY 08628-0068

(609) 882-2000

ROBERT J. DEL TUFO  
Attorney General

COLONEL JUSTIN J. DINTINO  
Superintendent

CERTIFICATE OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION  
Ethyl alcohol concentration within but not exceeding the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER/SUPPLIER Guth Laboratories, Inc.

DATE OF ANALYSIS: March 11, 1993

BREATH ALCOHOL SIMULATOR SOLUTION LOT NO. 93060

Representative samples of the above referenced Lot. No. were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.122 to 0.123 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purposes of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments in this State.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented on this Certificate of Analysis were performed under and at my direction and supervision by personnel of and at the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis within the Forensic Science Bureau.

DATE: 3/11/93

*Charles G. Tindall*

Charles G. Tindall, Ph. D.  
Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 12th day of March, 1993

*Sam Mullay*  
Notary  
SAM MULLAY  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires March 8, 1998



State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY  
DIVISION OF STATE POLICE

SPECIAL AND TECHNICAL SERVICES SECTION  
POST OFFICE BOX 7068

WEST TRENTON, NEW JERSEY 08628-0068  
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COLONEL JUSTIN J. DINTINO  
Superintendent

ROBERT J. DEL TUFO  
Attorney General

CERTIFICATE OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION  
Ethyl alcohol concentration within but not exceeding the range of 0.117 to 0.125  
grams per 100 milliliters of solution.

MANUFACTURER/SUPPLIER Guth Laboratories Inc.

DATE OF ANALYSIS: August 20, 1992

BREATH ALCOHOL SIMULATOR SOLUTION LOT NO. 92132

Representative samples of the above referenced Lot. No. were tested by Gas  
Chromatography and found to have an ethyl alcohol concentration range  
of 0.119 to 0.121 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known  
traceable standard for the purposes of conducting periodic tests, pursuant to  
N.J.A.C. 13:51-3.4, of approved breath test instruments in this State.

As Assistant Chief Forensic Scientist of the Division of State Police, I hereby  
certify and attest that the tests and results documented on this Certificate of  
Analysis were performed under and at my direction and supervision by personnel  
of and at the Forensic Science Bureau of the Division of State Police on properly  
functioning and calibrated instruments and equipment. All procedures utilized  
are accurate, objective, and performed on a routine basis within the Forensic  
Science Bureau.

DATE: August 24, 1992

Charles G. Tindall

Charles G. Tindall, Ph. D.  
Asst. Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 24TH day of August, 1992

Henry B. Swordsma  
Notary

HENRY B. SWORDSMA  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires Dec. 8, 1993



GUTH LABORATORIES, INC.

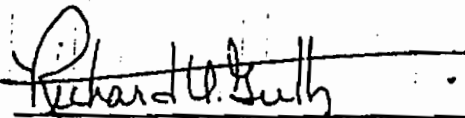
590 NORTH 67TH STREET · HARRISBURG, PA 17111 · TELEPHONE 717-564-5470

CERTIFICATE OF ANALYSIS - BREATH ALCOHOL REAGENT AMPOULE

CONTROL NUMBER 00892

DATE OF ANALYSIS July 1, 1992

<u>TEST</u>	<u>TEST RESULTS</u>	<u>SPECIFICATION</u>
VOLUME	<u>3.01 mls</u>	3.0 ml +0.1 ml -0.0 ml
POTASSIUM DICHROMATE	<u>0.2526 mg/ml</u>	0.25 mg/ml +/- 5%
ACID CONCENTRATION	<u>51.92%</u>	50% v/v (45.0% to 55.0%)
NORMALITY	<u>19.48 N</u>	18.8N - 19.6N
SPECIFIC GRAVITY	<u>1.53</u>	1.53 +/- 0.01 @ 20°C
SILVER	<u>YES</u>	PRESENT
SULFATE	<u>YES</u>	PRESENT
DICHROMATE	<u>YES</u>	PRESENT



RICHARD U. GUTH  
LABORATORY DIRECTOR

July 1, 1992

(date)



**GUTH LABORATORIES, INC.**

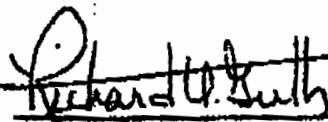
580 NORTH 67TH STREET • HARRISBURG, PA 17111 • TELEPHONE 717-644-5470

**CERTIFICATE OF ANALYSIS - BREATH ALCOHOL REAGENT AMPOULE**

CONTROL NUMBER 00892

DATE OF ANALYSIS July 1, 1992

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SPECIFIC GRAVITY	<u>1.53</u>	1.53 +/- 0.01 @ 20°C
SILVER	<u>YES</u>	PRESENT
SULFATE	<u>YES</u>	PRESENT
DICHROMATE	<u>YES</u>	PRESENT



RICHARD U. GUTH  
LABORATORY DIRECTOR

July 1, 1992

(date)



State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF STATE POLICE

SPECIAL AND TECHNICAL SERVICES SECTION
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WEST TRENTON, NEW JERSEY 08620-0068
(609) 882-2000

ROBERT J. DEL TUFO
Attorney General

COLONEL JUSTIN J. DINTINO
Superintendent

CERTIFICATE OF ANALYSIS
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION
Ethyl alcohol concentration within but not exceeding the range of 0.117 to 0.125
grams per 100 milliliters of solution.

MANUFACTURER/SUPPLIER Guth Laboratories

DATE OF ANALYSIS: February 11, 1992

BREATH ALCOHOL SIMULATOR SOLUTION LOT NO. 91232

Representative samples of the above referenced lot. No. were tested by Gas
Chromatography and found to have an ethyl alcohol concentration range
of 0.120 to 0.121 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known
traceable standard for the purposes of conducting periodic tests, pursuant to
N.J.A.C. 13:51-3.4, of approved breath test instruments in this State.

As Assistant Chief Forensic Scientist of the Division of State Police, I hereby
certify and attest that the tests and results documented on this Certificate of
Analysis were performed under and at my direction and supervision by personnel
of and at the Forensic Science Bureau of the Division of State Police on properly
functioning and calibrated instruments and equipment. All procedures utilized
are accurate, objective, and performed on a routine basis within the Forensic
Science Bureau.

DATE: February 11, 1992

Charles G. Tindall

Charles G. Tindall, Ph. D.
Asst. Chief Forensic Scientist
Division of State Police

Sworn to and subscribed before me this 11th day of February, 1992

Henry B. Sworin

Notary HENRY B. SWORIN
NOTARY PUBLIC OF NEW JERSEY

My Commission Expires 12/31/93
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State of New Jersey

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DIVISION OF STATE POLICE

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(609) 882-2000

ROBERT J. DEL TUFO  
Attorney General

COLONEL JUSTIN J. DINTINO  
Superintendent

CERTIFICATE OF ANALYSIS  
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION  
Ethyl alcohol concentration within but not exceeding the range of 0.117 to 0.125  
grams per 100 milliliters of solution.

MANUFACTURER/SUPPLIER Guth Laboratories

DATE OF ANALYSIS: February 11, 1992

BREATH ALCOHOL SIMULATOR SOLUTION LOT NO. 91232

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functioning and calibrated instruments and equipment. All procedures utilized  
are accurate, objective, and performed on a routine basis within the Forensic  
Science Bureau.

DATE: February 11, 1992

Charles G. Tindall, Ph. D.  
Asst. Chief Forensic Scientist  
Division of State Police

Sworn to and subscribed before me this 11th day of February, 1992

Henry B. Swoford  
Notary HENRY B. SWOFORD

NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires 2-1993  
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State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF STATE POLICE

SPECIAL AND TECHNICAL SERVICES SECTION
POST OFFICE BOX 7068

WEST TRENTON, NEW JERSEY 08628-0068
(609) 882-2000

ROBERT J. DEL TUFO
Attorney General

COLONEL JUSTIN J. DINTINO
Superintendent

CERTIFICATE OF ANALYSIS
0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION
Ethyl alcohol concentration within but not exceeding the range of 0.117 to 0.125
grams per 100 milliliters of solution.

MANUFACTURER/SUPPLIER Guth Laboratories, Inc.

DATE OF ANALYSIS: October 24, 1991

BREATH ALCOHOL SIMULATOR SOLUTION LOT NO. 91171

Representative samples of the above referenced Lot. No. were tested by Gas
Chromatography and found to have an ethyl alcohol concentration range
of 0.119 to 0.122 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known
traceable standard for the purposes of conducting periodic tests, pursuant to
N.J.A.C. 13:51-3.4, of approved breath test instruments in this State.

As Assistant Chief Forensic Scientist of the Division of State Police, I hereby
certify and attest that the tests and results documented on this Certificate of
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of and at the Forensic Science Bureau of the Division of State Police on properly
functioning and calibrated instruments and equipment. All procedures utilized
are accurate, objective, and performed on a routine basis within the Forensic
Science Bureau.

DATE: 11/1/91

Charles G. Tindall (handwritten signature)

Charles G. Tindall, Ph. D.
Asst. Chief Forensic Scientist
Division of State Police

Sworn to and subscribed before me this 1ST day of November, 1991

Henry D. Lundman (handwritten signature)
Notary Public of New Jersey

NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Dec. 8, 1993
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NOV 16 9 33 AM '91
FILES
FORWARDED TO THE ORIGINAL FILE IN THE STATE POLICE RECORDS SECTION

HERRON TESTING LABORATORIES, INC.

5405 E. SCHAAF ROAD • CLEVELAND, OHIO 44131

(216) 524-1450 • FAX: (216) 524-1459

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CHARLOTTE DIVISION

1200-E Westinghouse Blvd.

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Charlotte, North Carolina 28241

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To: NATIONAL DRAEGER, INC.  
P.O. BOX 120  
PITTSBURGH, PA 15230-0123

Page 1 of 1  
Herron File No. 91031360  
Purchase Order No. 91-03297  
Shipper No.  
Date Reported 4/4/91

ATTENTION: PATTY WILSON

SAMPLE DESCRIPTION One (1) Lot (Consisting of 25 Pcs)  
Breathalyzer Ampoules, Lot# 9001001ND,  
RSR# 396-91

6

ANALYSIS

	SPEC	RESULTS
Specific Gravity	(1.53 +/- 0.01 @ 23 Deg. C)	1.54
Volume	(3.0 + 0.1/-0.0 ml)	3.05 mls/ampoule
Sulfuric Acid Normality	(19.1 to 19.9)	19.7
Potassium Dichromate	(0.250 +/- 0.013 mgs/ml)	0.240 mg/ml
Silver Nitrate	(.250 +/- 0.025 mg/ml)	0.256 mg/ml
Diphenylcarbized Dichromate Test		Present
USP XIX Test For Sulfate		Present

The above tests were performed by Tom Routt.

Respectfully submitted,

HERRON TESTING LABORATORIES, INC.

Gary Upperman  
Manager, Analytical Services

GU:kl

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**State of New Jersey**  
**DEPARTMENT OF LAW & PUBLIC SAFETY**  
**DIVISION OF STATE POLICE**  
**SPECIAL & TECHNICAL SERVICES**  
**FORENSIC SCIENCE BUREAU**

APR 13 1991

**CERTIFICATE OF ANALYSIS**  
**0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION**

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION  
 Ethyl alcohol concentration within but not exceeding the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER/SUPPLIER: Guth Laboratories, Inc.

DATE OF ANALYSIS: March 22, 1991

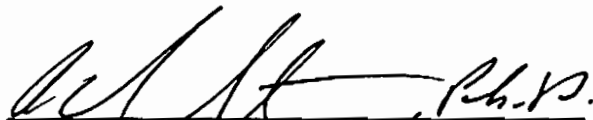
BREATH ALCOHOL SIMULATOR SOLUTION LOT NO. 91050

Representative samples of the above referenced Lot No. were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.121 to 0.122 grams per 100 milliliters of solution.

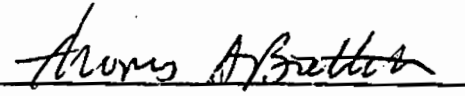
This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purposes of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments in this State.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented on this Certificate of Analysis were performed under and at my direction and supervision by personnel of and at the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis within the Forensic Science Bureau.

DATE: 4-1-91

  
 Richard Saferstein, Ph.D., Chief Forensic Scientist  
 Division of State Police

Sworn to and subscribed before me this 1<sup>st</sup> day of April, 1991

  
 Notary THOMAS A. BOTTELL  
 NOTARY PUBLIC OF NEW JERSEY  
 My Commission Expires March 2, 1994



**State of New Jersey**  
**DEPARTMENT OF LAW & PUBLIC SAFETY**  
**DIVISION OF STATE POLICE**  
**SPECIAL & TECHNICAL SERVICES**  
**FORENSIC SCIENCE BUREAU**

**CERTIFICATE OF ANALYSIS**  
**0.10 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION**

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION  
 Ethyl alcohol concentration within but not exceeding the range of 0.117 to 0.125 grams per 100 milliliters of solution.

MANUFACTURER/SUPPLIER: Guth Laboratories, Inc.

DATE OF ANALYSIS: October 12, 1990

BREATH ALCOHOL SIMULATOR SOLUTION LOT NO. 90120

Representative samples of the above referenced Lot No. were tested by Gas Chromatography and found to have an ethyl alcohol concentration range of 0.118 to 0.120 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purposes of conducting periodic tests, pursuant to N.J.A.C. 13:51-3.4, of approved breath test instruments in this State.

As Chief Forensic Scientist of the Division of State Police, I hereby certify and attest that the tests and results documented on this Certificate of Analysis were performed under and at my direction and supervision by personnel of and at the Forensic Science Bureau of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis within the Forensic Science Bureau.

DATE: October 15, 1990

*Richard Saferstein, Ph.D.*  
 Richard Saferstein, Ph.D., Chief Forensic Scientist  
 Division of State Police

Sworn to and subscribed before me this 15<sup>th</sup> day of October, 1990

*Mary Elizabeth McLaughlin*  
 Notary

MARY ELIZABETH McLAUGHLIN  
 NOTARY PUBLIC OF NEW JERSEY  
 My Commission Expires October 25, 1993



P. O. BOX 4187, 2323 SYCAMORE DR., KNOXVILLE, TENNESSEE 37921 / 615 546-1335

# CERTIFICATE OF ANALYSIS

Mr. Bernard J. Kaminski  
National Draeger  
Post Office Box 120  
Pittsburgh, Pennsylvania 15230

November 24, 1986

Received: November 12th  
PO#: 86-10071

Dear Mr. Kaminski:

Analysis of your compound gave the following results:

~~Our Lot # 8609001~~ (25 ampuls) (Our # R-2551 )

Assay: 266 mg/liter Ag NO<sub>3</sub>

Silver: Present

### Manufacturers Tolerance

Present

Identification: Present  
Present

USP XIX Test for Sulfate  
Diphenylcarbazied dichromate test

Specific Gravity:

1.530 @ 23°C.

1.53 ± 0.01 @ 23°C.

Normality 19.35 N

Potassium dichromate:

0.253 mg/ml

Potassium dichromate 0.25 mg/ml ± 5%

Volume per ampul:

3.01 ml

Volume per ampul 3.0 ± 0.1 ml

(average 4 ampuls)

The above report indicated that this batch of ampuls complies within established tolerances for breathalyzer solution as specified by the manufacturer, for use in all Breathalyzers®.

*Gail R. Hutchens*

Gail R. Hutchens, Exec. Vice-President

NOTARY PUBLIC, ROYAL PUBLIC  
PITTSBURGH, ALLEGHENY COUNTY  
COMMISSION EXPIRES SEP 24, 1990  
Pennsylvania Association of Notaries

*1-1-87 Gail R. Hutchens 6-11-87*

**Dräger**MATERIAL SAFETY DATA SHEET

National Draeger, Inc. Tel: (412) 787-8385/8389  
 101 Technology Drive Telex 86-6704  
 P.O. Box 120 Fax: (412) 787-2207  
 Pittsburgh, PA 15230-0120 Tlx: 510-6000-3055

SECTION I - MATERIAL IDENTIFICATION

CHEMICAL NAME: Diluted Sulfuric acid containing Potassium dichromate

CAS-NUMBER: N/A

SUPPLIER: NATIONAL DRAEGER, INC.

CHEMICAL FORMULA: H<sub>2</sub>-SO<sub>4</sub>/K<sub>2</sub>-CR<sub>2</sub>-O<sub>7</sub> ADDRESS: 101 Technology Drive  
 MOLECULAR WT: N/A Pittsburgh, PA 15275

CHEMICAL FAMILY: Strong oxidizing mineral acid

IN CASE OF EMERGENCY CONTACT  
 (412) 787-8383

TRADE NAMES/SYNONYMS: Breathalyzer Test Kit Solution

OSHA RATINGS (SCALE 0-3): Health = 3, Fire = 0, Reactivity = 2  
 Persistence = 3

SECTION II - COMPONENTS AND CONTAMINANTS

PERCENT: 50% by volume	COMPONENT: Sulfuric acid
PERCENT: 50% by volume	COMPONENT: Water
PERCENT: 0.25% weight/volume	COMPONENT: Potassium dichromate
PERCENT: 0.25% weight/volume	COMPONENT: Silver nitrate

SECTION III - PHYSICAL DATA

DESCRIPTION: Clear, yellow solution

BOILING POINT: Greater than 212° F.

MELTING POINT: N/A

SPECIFIC GRAVITY: 1.5

VAPOR PRESSURE: N/A

SOLUBILITY IN WATER: 100%

SOLVENT SOLUBILITY: N/A

PH: Less than 1

ODOR THRESHOLD: N/A

VAPOR DENSITY: N/A



P. O. BOX 4187, 2323 SYCAMORE DR., KNOXVILLE, TENNESSEE 37821 / 615 546-1336

# CERTIFICATE OF ANALYSIS

Systems Innovation Inc.  
P. O. Box 430  
Hallstead, Pennsylvania 18522

July 8, 1986

Received: July 2nd

**Lot: Lo - New Lot: 10916** (25 ampuls) (Our # P-3396 )

**Assay:**

Silver: 254 mg/l AgNO<sub>3</sub>

Manufacturers Tolerance

Present

Identification: Passes test  
Passes test

USP XIX Test for Sulfate  
Diphenylcarbozied dichromate test

Specific Gravity.

1.528 @ 23°C.

1.53 ± 0.01 @ 23°C.

Potassium dichromate:

0.252 mg/ml

Potassium dichromate 0.25 mg/ml = 5%

Normality: 19.35

Volume per ampul:

3.04 ml

Volume per ampul 3.0 + 0.1 ml

(average 4 ampuls)

"The above report indicated that this batch of ampuls complies within established tolerances for Breathalyzer<sup>®</sup> solution as specified by the manufacturer, for use in all Breathalyzers<sup>®</sup>."

Gail R. Hutchens, Exec. Vice-President



# CERTIFICATE OF ANALYSIS

P.O. BOX 51610, KNOXVILLE, TN 37950-1610  
OTHER CARRIERS - 2323 SYCAMORE DR. KNOXVILLE, TN 37921  
615/546-1335

Mr. Bernard J. Kaminski  
National Draeger  
P. O. Box 120  
Pittsburgh, Pennsylvania 15230

January 9, 1989

Received: Dec. 12th  
PO# 88-12537

Your Lot # 8706001ND (25 ampuls) (Our # D-3203 )

Assay: 252 mg/liter  $\text{AgNO}_3$

Silver: Present

Manufacturers Tolerance

Present

Identification: Present  
Present

USP XIX Test for Sulfate  
Diphenylcarbazide dichromate test

Specific Gravity:

1.532 @ 23°C.  
Normality 19.32N  
51.75%  $\text{H}_2\text{SO}_4$  val/vol  
Potassium dichromate:  
0.250 mg/ml

1.53 ± 0.01 @ 23°C

Potassium dichromate 0.25 mg/ml ± 5%

Volume per ampul:

3.025 ml

(average 4 ampuls)

Volume per ampul 3.0 ± 0.1 ml

"The above report indicated that this batch of ampuls complies with established tolerances for Breathalyzer® solution as specified by the manufacturer, for use in all Breathalyzer®"

Gail R. Hutchens, Exec. Vice-President





# CERTIFICATE OF ANALYSIS

P.O. BOX 51610, KNOXVILLE, TN 37950-1610  
OTHER CARRIERS • 2323 BYCAMORE DR. KNOXVILLE, TN 37921  
615/546-1335

Mr. Bernard J. Kaminski  
National Draeger  
P. O. Box 120  
Pittsburgh, Pennsylvania 15230

January 9, 1989

Received: Dec. 12th  
PO#: 88-12337

Your Lot # 8708001ND (25 ampuls) (Our # D-3203 )

Assay: 252 mg/liter  $\text{AgNO}_3$

Silver: Present

Manufacturers Tolerance

Present

Identification: Present  
Present

USP XIX Test for Sulfate  
Diphenylcarbazide dichromate test

Specific Gravity:

1.532 @ 23°C.  
Normality 19.32N  
51.75%  $\text{H}_2\text{SO}_4$  vol/vol  
Potassium dichromate:  
0.250 mg/ml

1.53 = 0.01 @ 23°C.

Potassium dichromate 0.25 mg/ml ± 5%

Volume per ampul:

3.025 ml

(average 4 ampuls)

Volume per ampul 3.0 + 0.1 ml

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Gail R. Hutchens, Exec. Vice-President



P. O. BOX 4187, 2323 SYCAMORE DR., KNOXVILLE, TENNESSEE 37921 / 615 546-1335

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*Gail R. Hutchens*

Gail R. Hutchens, Exec. Vice-President

NOTARNA PUBLIC NOTARY PUBLIC  
PITTSBURGH, ALLEGHENY COUNTY  
MY COMMISSION EXPIRES SEP 24, 1990  
Pennsylvania Association of Notaries

*1-10-86 Gail R. Hutchens 6-11-87*