



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: May 26, 2006
RE: BillLab, Inc., LLC. / 033-22887-00085
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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May 26, 2006

Ms. Penny Stump
BioLab, Inc., L.L.C., a Chemtura Company
P O Box 395
Ashley, IN 46705

Dear Ms. Stump:

Re: Exempt Operation Status,
033-22887-00085

The application from BioLab, Inc., L.L.C., a Chemtura Company, received on April 3, 2006, has been reviewed. This Exempt Operation Status Approval will supersede the previous Exempt Construction and Operation Status 033-18309-00085, issued March 12, 2004. This change includes a source name change from Biolab, Inc. to Biolab, Inc., L.L.C., a Chemtura Company, the installation of three (3) acid scrubbers, and changes to materials stored in tanks. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission units, located at 101 South Parker Drive, Ashley, Indiana, are classified as exempt from air pollution permit requirements:

- (a) Twenty-eight (28) natural gas-fired space heaters, with a combined maximum heat input capacity of 4.1 mmBtu per hour.
(b) One (1) household cleaning product bottling process, with a maximum capacity of 50,415 lb/hr, vented back to reservoir tanks.
(c) The following storage tanks Located in Bay 8:

Table with 3 columns: Vertical Fixed Roof Dome, Material, Capacity (gallons). Rows include SU-1 to SU-4 (Sulfamic Acid) and OX-1 to OX-6 (Oxalic Acid).

(d) The following water storage tanks:

	<i>Material</i>	<i>Capacity (gallons)</i>
Bay 8 #1	Deionized water	2,000
Bay 8 #2	Deionized water	2,000

(e) The following reservoir tanks in Basement:

<i>Vertical Fixed Roof Dome</i>	<i>Material</i>	<i>Capacity (gallons)</i>
RT -B1 (Rotonics) (modified)	15% HCl Drain Opener	1,500
RT-B2 (modified)	15% HCl Drain Opener	1,500
RT- B3 (modified)	Empty	1,500
RT- B4 (modified)	20 % HCl Bowl Cleaner	1,500
RT- B5 (modified)	Empty	1,500
RT- B6 (modified)	Waste Water	1,500
RT- B7 (modified)	Waste Water	1,500
RT- B8 (modified)	Empty	1,500
RT- B9 (modified)	Oxalic & Sulfamic Acid RCL	1,500
RT- B10 (modified)	4% Butyl Cellosolve Tub & Shower	1,500
RT- B11 (modified)	4% Butyl Cellosolve Tub & Shower	1,500
RT-12 (modified)	Misc (GC, SSR, SQ)	100

(f) The following outside storage tanks for raw materials:

<i>Vertical Fixed Roof Dome</i>	<i>Material</i>	<i>Capacity (gallons)</i>
HCl – A	32% Hydrochloric Acid	20,000
HCl – B	32% Hydrochloric Acid	20,000
Tank I	Empty	3,000
Tank J	Empty	6,000
Tank K	Empty	6,000
Tank F	Empty	20,000

(g) The following tanks for batching or holding product prior to bottling:

Bay 8 #8-5	Strip	
Bay 8 #8-6	SS, Fab, Filt.	2,000
Bay 8 #8-7	SS, Fab, Filt.	2,000
Bay 8 #8-8	4% Butyl Cellosolve, 5% IPA Glass	2,000
Bay 8 #8-9	4% Butyl Cellosolve, 5% IPA Glass	2,000
Bay 8 #8-10	Oxalic and Sulfamic RLC	2,000
Bay 8-GLA1	Glass Cleaner	2,800
Bay 8-GLA2	Glass Cleaner	4,000
Bay 8-GLA3	Glass Cleaner	4,000
Bay 8 #8-11	Premix	1,000
Bay 8 #8-12	Premix	500
Bay 8 #8-13	Premix	75 500
Bay 8 #8-14	Perfume	200

BT #9-1 4 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT -#9-2 5 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT - #9-3 (Bay 9)	10- 20.6% Hydrochloric Acid Drain or bowl cleaner	2,000
BT -#9-4 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT -#9-5 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT - #9-6 (Bay 9)	15 % Hydrochloric Acid Drain Cleaner	2,000
BT - #9-7 (Bay 9)	16% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-8 (Bay 9)	16% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-9 (Bay 9)	20% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-10 (Bay 9)	20% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-11 (Bay 9)	Premix	1,000

- (h) The following packaging lines:
- (1) Packaging line #1 for hydrochloric acid based cleaning products, with a maximum capacity of 16,632 pounds per hour, packaging line #2 for butyl cellosolve and/or isopropyl alcohol based cleaning products, with a maximum capacity of 11,088 pounds per hour, and packaging line #3 for hydrochloric acid based cleaning products, with a maximum capacity of 19,404 pounds per hour, all controlled by an acid mist fume scrubber, identified as 01.
 - (2) Packaging line #6 for hydrochloric acid based cleaning products, with a maximum capacity of 2,217.6 pounds per hour, and packaging line #9 for hydrochloric acid based cleaning products, with a maximum capacity of 19,404 pounds per hour, both controlled by an acid mist fume scrubber, identified as 03.
- (i) Seven (7) mixing tanks and two (2) HCl storage tanks, controlled by an acid mist fume scrubber, identified as 02.

The following condition shall be applicable:

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

This exemption is the fourth air exemption issued to this source. An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Origin signed by

Nysa L. James, Section Chief
Permits Branch
Office of Air Quality

NLJ/clb

cc: File - DeKalb County
DeKalb County Health Department
Air Compliance Section - Doyle Houser
IDEM North Regional Office
Permit Tracking – Cynthia Bymaster
Compliance Data Section

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	BioLab, Inc., L.L.C., a Chemtura Company
Source Location:	101 South Parker Drive, Ashley, IN, 46705
County:	DeKalb
SIC Code:	2842
Operation Permit No.:	033-22887-00085
Permit Reviewer:	Cynthia Bymaster

The Office of Air Quality (OAQ) has reviewed an application from BioLab, Inc., L.L.C., a Chemtura Company (formerly known as BioLab, Inc.) relating to the operation of an existing stationary household cleaning products formulation and bottling facility.

Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Twenty-eight (28) natural gas-fired space heaters, with a combined maximum heat input capacity of 4.1 mmBtu per hour.
- (b) One (1) household cleaning product bottling process, with a maximum capacity of 50,415 lb/hr, vented back to reservoir tanks.
- (c) The following storage tanks Located in Bay 8:

<i>Vertical Fixed Roof Dome</i>	<i>Material</i>	<i>Capacity (gallons)</i>
SU-1	Sulfamic Acid	4,000
SU -2	Sulfamic Acid	4,000
SU -3	Sulfamic Acid	4,000
SU -4	Sulfamic Acid	2000
OX-1	Oxalic Acid	4,000
OX-2	Oxalic Acid	4,000
OX-3	Oxalic Acid	4,000
OX-4	Oxalic Acid	4,000
OX-5	Oxalic Acid	2,000
OX-6	Oxalic Acid	2,000

- (d) The following water storage tanks:

	<i>Material</i>	<i>Capacity (gallons)</i>
Bay 8 #1	Deionized water	2,000
Bay 8 #2	Deionized water	2,000

(e) The following reservoir tanks in Basement:

<i>Vertical Fixed Roof Dome</i>	<i>Material</i>	<i>Capacity (gallons)</i>
RT -B1 (Rotonics) (modified)	15% HCl Drain Opener	1,500
RT-B2 (modified)	15% HCl Drain Opener	1,500
RT- B3 (modified)	Empty	1,500
RT- B4 (modified)	20 % HCl Bowl Cleaner	1,500
RT- B5 (modified)	Empty	1,500
RT- B6 (modified)	Waste Water	1,500
RT- B7 (modified)	Waste Water	1,500
RT- B8 (modified)	Empty	1,500
RT- B9 (modified)	Oxalic & Sulfamic Acid RCL	1,500
RT- B10 (modified)	4% Butyl Cellosolve Tub & Shower	1,500
RT- B11 (modified)	4% Butyl Cellosolve Tub & Shower	1,500
RT-12 (modified)	Misc (GC, SSR, SQ)	100

(f) The following outside storage tanks for raw materials:

<i>Vertical Fixed Roof Dome</i>	<i>Material</i>	<i>Capacity (gallons)</i>
HCl – A	32% Hydrochloric Acid	20,000
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Tank I	Empty	3,000
Tank J	Empty	6,000
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Tank F	Empty	20,000

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Bay 8 #8-8	4% Butyl Cellosolve, 5% IPA Glass	2,000
Bay 8 #8-9	4% Butyl Cellosolve, 5% IPA Glass	2,000
Bay 8 #8-10	Oxalic and Sulfamic RLC	2,000
Bay 8-GLA1	Glass Cleaner	2,800
Bay 8-GLA2	Glass Cleaner	4,000
Bay 8-GLA3	Glass Cleaner	4,000
Bay 8 #8-11	Premix	1,000
Bay 8 #8-12	Premix	500
Bay 8 #8-13	Premix	75 500
Bay 8 #8-14	Perfume	200

BT #9-1 4 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT -#9-2 5 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT - #9-3 (Bay 9)	10- 20.6% Hydrochloric Acid Drain or bowl cleaner	2,000
BT -#9-4 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT -#9-5 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT - #9-6 (Bay 9)	15 % Hydrochloric Acid Drain Cleaner	2,000
BT - #9-7 (Bay 9)	16% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-8 (Bay 9)	16% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-9 (Bay 9)	20% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-10 (Bay 9)	20% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-11 (Bay 9)	Premix	1,000

- (h) The following packaging lines:
 - (1) Packaging line #1 for hydrochloric acid based cleaning products, with a maximum capacity of 16,632 pounds per hour, packaging line #2 for butyl cellosolve and/or isopropyl alcohol based cleaning products, with a maximum capacity of 11,088 pounds per hour, and packaging line #3 for hydrochloric acid based cleaning products, with a maximum capacity of 19,404 pounds per hour, all controlled by an acid mist fume scrubber, identified as 01.
 - (2) Packaging line #6 for hydrochloric acid based cleaning products, with a maximum capacity of 2,217.6 pounds per hour, and packaging line #9 for hydrochloric acid based cleaning products, with a maximum capacity of 19,404 pounds per hour, both controlled by an acid mist fume scrubber, identified as 03.
- (i) Seven (7) mixing tanks and two (2) HCl storage tanks, controlled by an acid mist fume scrubber, identified as 02.

Existing Approvals

The source has been operating under previous approvals including, but no limited to, the following:

- (a) Exemption 033-16854-00085 issued on March 31, 2003; and
- (b) Exemption 033-18309-00085 issued on March 12, 2004.

All conditions from previous approvals were incorporated into this permit.

Justification for the Revision

The Exemption is being modified pursuant to 326 IAC 2-1.1-3.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 3, 2006, with additional information received on April 19, 2006.

Stack Summary

<i>Stack ID</i>	<i>Operation</i>	<i>Height (feet)</i>	<i>Diameter (feet)</i>	<i>Flow Rate (acfm)</i>	<i>Temperature (°F)</i>
STV-1	Storage Tank	10	0.33	-	50
STV-I	IPA Vent	16	0.5	-	50
STV-H	Relief Vent	18	0.17	-	50
STV-J	Relief Vent	18	0.17	-	50
STV-F	Relief Vent	18	0.17	-	50
STV-G	Relief Vent	18	0.17	-	50
PVB -1	Basement Tanks	26	0.5	-	70
PVB-1	Bay 8 (Tank 5-9)	24	0.17	582	70
PVB-2	Bay 8 (Tank 10)	24	0.17	-	70
PVB-3	Bay 8 (Vitech Tank)	24	0.17	-	70
PV9-1, PV-2 PV9-4, PV-5	Tanks 9-1,2,4,5 - 4% Butyl Cell	26	0.33	-	70
PV9-3	Tanks 9 21% HCl	26	0.33	-	70
PV9-6	Tanks 9 6 16% HCl	26	0.33	-	70
PV9-7, PV9-8	Tanks 7 and 8 16% HCl	26	0.17	-	70
PV9-9, PV9-10	Tanks 9 and 10 21% HCl	26	0.17	-	70
PV12-1	Bay 12 (Line 9) Fill Enclosure	24	0.75	582	70
PV12-2	Bay 12 Process Tanks	18	0.17	-	70
GV-1, GV-2	Warehouse Roof Exhaust	16	3	3,200	70
GV-3	Line #3 Side Exhaust	10	3	3,200	70
GV-4, GV-5	Bay 12 Side Exhausts	10	3	3,200	70

Emission Calculations

Potential to Emit (PTE) of emission units:

- (a) Storage Tanks: Emissions based on Tanks 4.0 Emissions Reports (submitted by source and verified by IDEM)

HCl - A (storing 32% hydrochloric acid, which is a HAP): HAP emissions = 1.09 tpy

HCl - B HAP emissions = 1.09 tpy

Tank I (storing isopropyl alcohol): VOC emissions = 68.65 lb/yr = 0.03 tpy

Tank J (butyl cellosolve which is a glycol ether): VOC emissions = HAP emissions = 0.67 tpy

Emissions from all other tanks are estimated to be negligible, based on the small storage capacities.

(b) Packaging Lines:

Packaging Line # 1, 3, 6, and 9:

HAP (hydrochloric acid) emissions: The emission rates of hydrochloric acid at room temperature (25°C) for 20% and 30% solutions for filling operations were calculated to be negligible based on evaporation rates of HCl (Kawamura & Mackay, 1985). Also, the filling operations at this source are enclosed, with the pumped out air being bubbled through reclaim tanks.

Therefore, HAP emissions from filling lines 1, 3, 6, and 9 = Negligible

Packaging Line # 2:

VOC (isopropyl alcohol + Butyl Cellosolve) emissions:

Maximum processing capacity = 11,088 lb/hr

Assuming each bottle weight = 2 pounds

Filling capacity = 5500 bottles (approximately)

Evaporation Rate E (kg/s) (Kawamura & Mackay, 1985) = $A \times K_M \times (M_w \times P_v) / (R \times T)$

Where: A = area of evaporating surface (m²) = 0.01 m² (approx) for each bottle

K_M = mass transfer coefficient (m/s)

M_w = molecular weight

P_v = vapor pressure (in Pa)

R = gas constant = 8314 J/kmole 0K

T = Temperature = 293 0K

K_M = 0.002 x U (m/s) where U = wind speed at surface

U is assumed to be 5 m/s, K_M = 0.002 x 5 = 0.01 m/s

E (kg/s) for isopropyl alcohol =

0.01 m²/s x 0.01 m/s x (60.10 kg/k-mole x 4400 Pa) / (8314 J per K-mole 0K x 293 0K)

E (kg/s) = 0.000011 kg/s (from one bottle)

Assuming a filling time of 5 sec, E = 0.000055 kg (each bottle)

Emissions of VOC = 0.000055 kg/bottle x 5500 bottles/hr x 2.2 lb/kg x 8760 hr/hr / (2000 tons/lb) = 2.9 tons per year

E (kg/s) for butyl cellosolve (glycol ether) =

0.01 m²/s x 0.01 m/s x (118.2 kg/k-mole x 4400 Pa) / (8314 J per K-mole 0K x 293 0K)

E (kg/s) = 0.00002 kg/s (from one bottle)

Assuming a filling time of 5 sec, E = 0.0001 kg (each bottle)

Emissions of VOC = HAP emissions = 5.6 tons per year

Emissions Summary:

VOC (tpy)

HAPs (tpy)

Tank Emissions	0.70	2.18 (HCl)
Filling Lines	8.50	5.6 (Glycol Ether)

- (c) Emissions Calculations for the twenty eight (28) natural gas fired combustion units are attached in Appendix A (1 page).

Potential to Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	Negligible
PM-10	Negligible
SO ₂	Negligible
VOC	9.3
CO	1.5
NO _x	1.8
Single HAP	5.6
Combined HAP	7.78

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all pollutants is less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

County Attainment Status

The source is located in DeKalb County.

Pollutant	Status
PM-10	attainment
PM 2.5	attainment
SO ₂	attainment
NO ₂	attainment
1-hr Ozone	attainment
8-hr Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx are considered when evaluating the rule applicability relating to ozone. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

- (b) DeKalb County has been classified as attainment or unclassifiable in Indiana for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as surrogate for PM_{2.5} emissions. See the State Rule Applicability – Entire Source section.
- (c) DeKalb County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

- (a) The storage tanks at this source storing volatile organic liquids are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984), because these have storage capacities of less than 40 cubic meters. The storage tanks with capacities over 40 m³ store hydrochloric acid, which is not a volatile organic liquid.
- (b) This source, which processes Glycol Ether, a listed chemical in Table 2 of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart F (National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry), is not a major source of HAPs, as defined in Section 112(a) of the Clean Air Act. Therefore, according to 40 CFR 63.100(b)(3), it is not subject to the requirements of Subpart F.
- (c) This source, which stores and handles Glycol Ether, is not subject to Subpart F. Therefore, according to 40 CFR 63.110(a), it is not subject to the requirements of Subpart G (National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry).

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source and is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program. This source is located in DeKalb County and does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year (tpy). Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-2 (Prevention of Significant Deterioration)

The potential to emit of all criteria pollutants from this source, which was constructed in March 31, 2003, is less than 250 tons per year and it is not one of the 28 listed source categories. Therefore, 326 IAC 2-2 does not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

This operation will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-9-1 (Volatile Organic Liquid Storage Vessels)

The tanks at this source are not subject to this rule, since the source is not located in any of the listed counties in this rule.

326 IAC 8-1-6 (General Provisions Relating to VOC Rules: General Reduction Requirements for New Facilities).

Each emission unit at this source has potential VOC emissions of less than twenty-five tons per year. Therefore, 326 IAC 8-1-6 does not apply.

Changes to Exemption No. 033-08309-00085

The exemption has been revised as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

1. All references to the name of the source have been revised as follows:
BioLab, Inc., L.L.C., a Chemtura Company
2. The following changes have been made to address the addition of three (3) scrubbers for HCl control and to accurately reflect the existing emission units at the source:
 - (a) Twenty-eight (28) natural gas-fired space heaters, with a ~~total~~ **combined** maximum heat

input capacity of 4.1 mmBtu per hour.

- (b) One (1) household cleaning product bottling process, **with a maximum capacity of 50,415 lb/hr**, vented back to reservoir tanks.
- (c) The following storage tanks Located in Bay 8:

<i>Vertical Fixed Roof Dome</i>	<i>Material</i>	<i>Capacity (gallons)</i>
STU-1	Phosphoric Acid Sulfamic Acid	4550 4,000
STU-2	Butyl Cellosolve Sulfamic Acid	6000 4,000
STU-3	Phosphoric Acid Sulfamic Acid	3800 4,000
STU-4	Hydrochloric Acid Sulfamic Acid	15250 2,000
ST-5 OX-1	Hydrochloric Acid Oxalic Acid	7050 4,000
ST-6 OX-2	Hydrochloric Acid Oxalic Acid	5750 4,000
ST-7 OX-3	Hydrochloric Acid Oxalic Acid	15250 4,000
ST-8 OX-4	Isopropyl Alcohol Oxalic Acid	3200 4,000
OX-5	Oxalic Acid	2,000
OX-6	Oxalic Acid	2,000

- (d) The following water storage tanks:

	<i>Material</i>	<i>Capacity (gallons)</i>
WT-1 Bay 8 #1	Deionized water	1050 2,000
WT-2 Bay 8 #2	Deionized water	1050 2,000
WT-3	RO Water	1,500
RT-13	RO Water	1,000
RT-14	RO Water	1,000
RT-15	RO Water	1,000
RT-16	RO Water	1,000

- (e) The following reservoir tanks in **Basement**:

<i>Vertical Fixed Roof Dome</i>	<i>Material</i>	<i>Capacity (gallons)</i>
RT-B1 (Rotonics) (modified)	4% Butyl Cellosolve 15% HCl Drain Opener	1200 1,500
RT-B2 (modified)	Waste Water 15% HCl Drain Opener	1200 1,500
RT-B3 (modified)	21% HCl Empty	1200 1,500
RT-B4 (modified)	12 20% HCl Bowl	1200 1,500

	Cleaner	
RT-B5 (modified)	24% HCl Empty	4200 1,500
RT-B6 (modified)	24% HCl Waste Water	4200 1,500
RT-B7 (modified)	Phosphoric Acid Waste Water	4200 1,500
RT-B8 (modified)	15% HCl Empty	4200 1,500
RT-B9 (modified)	Oxalic & Sulfamic Acid RCL	4200 1,500
RT-B10 (modified)	4% Butyl Cellosolve Tub & Shower	4200 1,500
RT-B11 (modified)	RCL 4% Butyl Cellosolve Tub & Shower	4200 1,500
RT-12 (modified)	RO Water Misc (GC, SSR, SQ)	100
RT-13 (modified)	RO Water	1,500
RT-14 (modified)	RO Water	1,000

(f) The following **outside** storage tanks for ~~cleaning products~~ **raw materials**:

<i>Vertical Fixed Roof Dome</i>	<i>Material</i>	<i>Capacity (gallons)</i>
HCl – A	32% Hydrochloric Acid	20,000
HCl – B	32% Hydrochloric Acid	20,000
Tank I	IPA (Isopropyl Alcohol) Empty	3,000
Tank J	Butyl Cellosolve Empty	6,000
Tank K	Butyl Cellosolve Empty	6,000
Tank F	Phosphoric Acid Empty	20,000

(g) The following tanks for batching or holding product prior to bottling:

Bay 8 #8-5	Strip	2,000
Bay 8 #8-6	4% Butyl Cellosolve, 5% IPA SS, Fab, Filt.	2,000
Bay 8 #8-7	4% Butyl Cellosolve, 5% IPA SS, Fab, Filt.	2,000
Bay 8 #8-8	4% Butyl Cellosolve, 5% IPA Glass	2,000
Bay 8 #8-9	4% Butyl Cellosolve, 5% IPA Glass	2,000
Bay 8 #8-10	4% Butyl Cellosolve, 5% IPA Oxalic and Sulfamic	2,000

	RLC	
Bay 8 #11	Blending tank for RLC	2,000
Bay 8-GLA1	Glass Cleaner	2,800
Bay 8-GLA2	Glass Cleaner	4,000
Bay 8-GLA3	Glass Cleaner	4,000
Bay 8 #8-1142	Premix	1,000
Bay 8 #8-1244	Premix	500
Bay 8 #8-1345	Premix	75 500
Bay 8 #8-14 46	Perfume	200
Bay 8 #17	L60B	300
Bay 8 #18	Perfume	200

BT -#9-1 4 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT -#9-2 5 (Bay 9)	Butyl Cellosolve Tub and Shower	2,000
BT - #9-36 (Bay 9)	10- 20.6% Hydrochloric Acid Drain or bowl cleaner	2,000
BT -#9-4 7 (Bay 9)	20.6% Hydrochloric Acid Butyl Cellosolve Tub and Shower	2,000
BT -#9-5 8 (Bay 9)	20.6% Hydrochloric Acid Butyl Cellosolve Tub and Shower	2,000
BT - #9-69 (Bay 9)	15 20.6% Hydrochloric Acid Drain Cleaner	2,000
BT - #9-79 (Bay 9)	16 20.6% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-89 (Bay 9)	16 20.6% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-99 (Bay 9)	20.6% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-10 (Bay 9)	20.6% Hydrochloric Acid Bowl Cleaner	2,000
BT - #9-1142	Premix	1,000
Bay 12-B	16% Hydrochloric Acid	2,000

- (h) The following packaging lines:
- (2) Packaging line #1 for hydrochloric acid based cleaning products, with a maximum capacity of 16,632 pounds per hour~~-,~~
 - ~~(2)~~ **P**ackaging line #2 for butyl cellosolve and/or isopropyl alcohol based cleaning products, with a maximum capacity of 11,088 pounds per hour~~-,~~ **and**
 - ~~(3)~~ **P**ackaging line #3 for hydrochloric acid based cleaning products, with a maximum capacity of 19,404 pounds per hour~~-,~~ **all controlled by an acid mist fume scrubber, identified as 01.**
 - ~~(4)~~**(2)** Packaging line #6 for hydrochloric acid based cleaning products, with a maximum capacity of 2,217.6 pounds per hour~~-,~~ **and**
 - ~~(5)~~ **P**ackaging line #9 for hydrochloric acid based cleaning products, with a maximum capacity of 19,404 pounds per hour~~-,~~ **both controlled by an acid mist fume scrubber, identified as 03.**
- (i) **Seven (7) mixing tanks and two (2) HCl storage tanks, controlled by an acid mist fume scrubber, identified as 02.**

3. The following changes were made to the Opacity Limitations , 326 IAC 5-1, to reflect changes to 326 IAC 5-1.

326 IAC 5-1 (~~Visible Emissions~~ **Opacity** Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions **Alternative Opacity Limitations**), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings~~)~~ as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Conclusion

The operation of this household cleaning products formulation and bottling facility shall be subject to the conditions of the Exemption No.: 033-22887-00085.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 28 Natural Gas Fired Space Heaters**

Company Name: BioLab, Inc., L.L.C., a Chemtura Company
Address City IN Zip: 101 South Parker Drive, Ashley, Indiana, 46705
Exemption: 033-22887
Plt ID: 033-00085
Reviewer: Cynthia Bymaster
Date: May 23, 2006

Heat Input Capacity	Potential Throughput
MMBtu/hr	MMCF/yr
4.100	35.92

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.034	0.136	0.011	1.796	0.099	1.508

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton