

Alcohol Beverage Tax Information

Table of Contents

	Page
I. INTRODUCTION	1
II. DEFINITIONS	1
III. IMPOSITION OF THE BEVERAGE TAXES.....	1
IV. TAX RATES	2
V. OBTAINING AN ALCOHOL BEVERAGE PERMIT	3
VI. FILING TAX RETURNS	5
VII. HOW TO CORRECT A PRIOR RETURN	7
VIII. REFUNDS OF TAXES PAID.....	7
IX. RECORD KEEPING	7
X. FILING INCORRECT RETURNS, CRIMINAL CHARGES, AND DELINQUENT FEE	8
XI. BEER PRODUCTION AND LIQUOR STATISTICS	8
XII. BEVERAGE TAX EVASION	8
XIII. INDIVIDUALS BRINGING LIQUOR INTO WISCONSIN	8
XIV. REQUESTING ADDITIONAL REPORTING FORMS AND ASSISTANCE.....	9
Appendix A – Conversion Factors for Converting Case Sizes to Liters.....	10
Appendix B – Conversion Factors for Converting Gallons and Liters to Barrels	11

CAUTION

The information in this publication reflects interpretations by the Wisconsin Department of Revenue of laws enacted by the Wisconsin legislature as of August 1, 2009. Laws enacted after this date, administrative rules, and court decisions may change the interpretations in this publication.

I. INTRODUCTION

This publication provides information concerning Wisconsin's alcohol beverage tax laws. It explains who needs an alcohol beverage permit, when returns are due, interest and penalties imposed on returns filed incorrectly, what records to keep, and other related topics.

IMPORTANT MESSAGE

Imported Alcohol Beverages – If you import alcohol beverages into Wisconsin from a foreign country, you are required to report the imported product on your Wisconsin beverage tax returns. The tax on imported product is payable by the permittee who is the “importer of record” with US Customs and Border Protection (CBP). Imported product may be received in Wisconsin directly from a foreign country via the Milwaukee CBP office or shipped into Wisconsin from a CBP facility in another state by a bonded shipping service.

II. DEFINITIONS

In this publication, the following definitions apply:

- *Distilled spirits* – Any beverage (except beer) made by a **distillation** process from agricultural grains, fruits, and sugars, containing 0.5% or more of alcohol by volume. Distilled spirits may be sold under the name of, for example, whiskey, brandy, gin, rum, or cordials.
- *Wine* – Any beverage (except beer) made by a **fermentation** process from agricultural products, fruits, and sugars, containing 0.5% or more of alcohol by volume. Wine may be sold under the name of, for example, wine, ver-

mouth, or sake. Wine includes cider containing more than 7% alcohol by volume.

- *Cider* – Any beverage (except beer) obtained from the **fermentation of the juice of apples**, containing not less than 0.5% alcohol by volume and not more than 7% alcohol by volume. Cider can be flavored, sparkling, or carbonated. Cider containing more than 7% alcohol by volume is taxed as wine.
- *Beer* – Any beverage made by the alcohol fermentation in water of barley malt and hops, with or without grains and sugar, containing 0.5% or more of alcohol by volume. The term “beer” is used in this publication in place of “*fermented malt beverages*,” which is the term for beer in Wisconsin law.
- *Liquor* – Liquor includes distilled spirits, apple cider, and wine.
- *Permittee* – A person who holds a beverage tax permit *issued* by the department.

III. IMPOSITION OF THE BEVERAGE TAXES**A. Liquor Taxes (distilled spirits, wine and apple cider)**

Liquor taxes are paid by the following permittees registered with the department (see Part IV):

1. A Wisconsin liquor wholesaler who imports liquor from a foreign country under CBP bond.
2. An out-of-state shipper who ships liquor into Wisconsin from other states.
3. A Wisconsin manufacturer, rectifier, or winery who produces or bottles liquor in Wisconsin.
4. A wine direct shipper who ships wine to individuals in Wisconsin.

Tax payments must be submitted by the above permittees along with their monthly liquor tax returns (Form AB-130; also see Part V). A wine

direct shipper's tax payments must be submitted with their quarterly liquor tax return.

B. Beer Tax

The beer tax is paid by the following beer permittees registered with the department (see Part V):

1. Wisconsin breweries on all sales made in Wisconsin.
2. Wisconsin brewpubs on all sales made in Wisconsin.
3. An out-of-state shipper who ships beer into Wisconsin from other states.
4. A Wisconsin wholesaler who imports beer into Wisconsin from a foreign country under a CBP bond.

Tax payments must be submitted by the above permittees along with their monthly beer tax returns (Form BT-100 for breweries and brewpubs, Form BT-104 for out-of-state shippers and for Wisconsin importers; also see Part VI).

C. Exceptions To The Beverage Tax

Beverage taxes are not imposed upon the following:

1. Liquor
 - a. Liquor shipped to other states or foreign countries.
 - b. Wine sold or used for sacramental purposes.
 - c. Liquor sold to industrial permittees for use in food items.
 - d. Liquor sold to hospitals for medicinal purposes.
 - e. Wine or apple cider made at home for consumption at home without compensation.
2. Beer
 - a. Beer shipped to other states or foreign countries.

- b. Beer sold to industrial permittees for use in food items.
- c. Beer furnished by a brewer to employees without charge on brewery premises.
- d. Beer which contains less than 0.5% alcohol by volume.
- e. Beer made at home for consumption at home without compensation.

IV. TAX RATES

A. Distilled Spirits

The tax rate on distilled spirits is 85.86¢ per liter plus an administrative fee of 2.906¢ per liter.

B. Wine

The tax rates are:

- For wine that is 14% or *less* of alcohol by volume, 6.605¢ per liter.
- For wine that is *more* than 14% alcohol by volume but not more than 21% of alcohol, 11.89¢ per liter.

Wine includes apple cider that contains *more* than 7% alcohol by volume.

C. Apple Cider

The tax rate on apple cider that is 7% or *less* of alcohol by volume is 1.71¢ per liter. **Caution:** Cider that contains *more* than 7% of alcohol by volume is taxed at wine rates.

D. Beer

The tax rate on beer is \$2.00 per 31-gallon barrel. Thus, the tax on a 12-ounce can or bottle of beer is about 6 tenths of a cent (less than one penny).

Eligible producer tax credit – A brewer who produces less than 300,000 barrels of beer per year is eligible for a tax credit of \$1.00 per barrel on the first 50,000 barrels subject to Wisconsin beer tax. In determining a brewer's total production, all

brands and labels of all production facilities, regardless where located, are combined.

E. Inventory (Floor) Taxes

- *Liquor Taxes* – When a liquor tax rate increases, a floor tax is imposed on permittees liable for paying the tax at the prior rate. The floor tax is the amount by which the liquor tax rate increases.
- *Beer Tax* – Currently there is no statutory authority to impose a floor tax on beer if the tax rate were to increase.

V. OBTAINING AN ALCOHOL BEVERAGE PERMIT

A. General

In order to obtain an alcohol beverage permit from the department, you must submit a properly completed application for a beverage permit with the department. The application is available by contacting the department’s Excise Tax Section at (608) 261-6435 or you can access them online at the department’s web site www.revenue.wi.gov.

After contacting the department, an application will be sent to you for the necessary permit. You will also be sent an application to register your business (Form BTR-101), if you do not already hold a Business Tax Registration (BTR) Certificate. You may already have a BTR Certificate if you applied for a Wisconsin Seller’s Permit, Use Tax Registration Certificate, Consumer’s Use Tax Certificate or Employer Identification Number.

The alcohol beverage permits issued by the department and associated fees are summarized in Parts A and B. Statutory requirements for each permit are numerous and will be sent to you with your application. There is also a \$20 fee for a BTR Certificate, which is renewable every two years for \$10.

Caution: Do not confuse the permits issued by the department with the retail license issued by your local municipal clerk (see item D. on page 4).

B. Liquor Permits And Supplemental Fees

The following **liquor permits** for distilled spirits, wine and apple cider are issued by the department. The supplemental fee to obtain the permit is also noted.

1. Wisconsin Liquor Wholesaler – \$1,000
2. Wisconsin Manufacturer – \$1,000
3. Wisconsin Rectifier – \$1,000
4. Out-of-State Shipper – \$500
5. Wisconsin Winery – \$200 (includes apple cider producers in Wisconsin)
6. Wine Direct Shipper - \$200
7. Wisconsin Public Warehouse – \$200
8. Wisconsin Limited Manufacturer – no fee
9. Industrial Wine – no fee
10. Industrial Alcohol – no fee
11. Sacramental Wine – no fee
12. Medicinal Alcohol – no fee
13. Salespersons (needed by each person who personally solicits orders in Wisconsin) – no fee

The department also issues the following **retail liquor permits**:

1. Sports Clubs – \$600
2. Vessels – \$600
3. Public Facilities and Airports – \$600

C. Beer Permits And Supplemental Fees

The following **beer permits** are issued by the department. The supplemental fee to obtain a permit is also noted.

1. Wisconsin Breweries – no fee

2. Wisconsin Brewpub – no fee
3. Wisconsin Wholesalers and Importers – no fee
4. Out-of-State Shippers – no fee
5. Industrial Beer – no fee
6. Wisconsin Public Warehouse – \$200

The department also issues the following **retail** beer permits:

1. Sports Clubs – \$200
2. Vessels – \$200

D. Municipal License May Be Needed

Municipalities may enact additional regulations affecting your business. You should contact the clerk's office of the Wisconsin municipality (town, village, or city) in which you intend to do business. You may need to obtain a license from the municipality. **Caution:** A municipal license does not take the place of a permit issued by the department. Neither does a municipal license allow you to engage in a wholesale activity or purchase untaxed product.

E. Additional Permit Information

- *Security Requirement* – You may be required to submit security guaranteeing your payment of the beverage tax. If security is required, your permit will not be issued until the security is received.

The amount of security required is twice a person's maximum monthly beverage tax, but not less than \$1,000 nor more than \$100,000.

Acceptable types of security include, but are not limited to, bonds, certificates of deposit, or cash.

- *Label Approval* – No alcohol beverage product may be shipped into Wisconsin and sold until the federal government has approved the labels which will appear on the product container. Do not submit copies of federal label approvals to the department.

- *Display of Permit* – Each permit must be conspicuously displayed at the place of business for which issued.
- *Responsible for Actions of Liquor Salespersons* – All liquor permittees are responsible for the actions of their salespersons. A permit may be in jeopardy if any salesperson violates the liquor laws and regulations of this state.
- *Shipments into Wisconsin from Out-of-State Shippers* – All shipments of liquor or beer from another state to a liquor or beer wholesaler in Wisconsin must be unloaded at, and distributed from, the wholesaler's warehouse in Wisconsin. A wine direct shipper who holds a valid Wisconsin permit may ship wine to individuals within Wisconsin if they are of legal drinking age. An individual may only receive 108 liters of wine in a calendar year.
- *Confiscation of Alcohol Beverage Products* – The holder of an out-of-state liquor and/or beer shipper's permit may only ship alcohol beverage products to persons in Wisconsin authorized by the department to receive the products. Shipments to unauthorized persons may be confiscated by the department's Alcohol and Tobacco Enforcement Section. Out-of-state shippers should call the department at (608) 261-6435 when in doubt as to whether a person in Wisconsin is authorized to receive products.

Alcohol beverages found in Wisconsin on which the tax has not been paid may be confiscated. In addition, any alcohol beverage product possessed or sold under the wrong permit may result in confiscation of the product. Persons who have product confiscated by the department may also be subject to criminal prosecution.

- *Additional Location* – If you begin operations at another location other than the location covered by your permit, contact the department's Excise Tax Section at (608) 261-6435 immediately to obtain a permit for the additional location.

- *Reporting Name/Address/Ownership Changes or Ceasing Operations* – You should notify the department in writing when your business changes its name, address, or ownership or when you cease operating in Wisconsin. If you receive a different federal employer identification number, you must file a new alcohol beverage permit application with the department and update your security.

VI. FILING TAX RETURNS

A. Who Must File Tax Returns

Most alcohol beverage permittees registered with the Wisconsin Department of Revenue must complete and file a return with the department summarizing their transactions and computing any tax due (see Part III).

Exceptions: Persons holding the following alcohol beverage permits with the department do not have to file monthly tax returns:

1. Wisconsin industrial wine
2. Wisconsin industrial alcohol
3. Sacramental wine
4. Medicinal alcohol
5. Wisconsin and out-of-state liquor salespersons
6. Wisconsin public warehouse
7. Sports club retail liquor and beer
8. Vessel retail liquor and beer
9. Public facility and airport retail liquor

In addition, Wisconsin beer wholesalers who deal exclusively with other Wisconsin beer wholesalers file a monthly zero tax informational report.

Persons holding the above permits are either exempt from the beverage tax (1 through 4), do not actually own the products being sold (5 and 6), or only buy products on which the tax has already been paid (7, 8, and 9).

B. What Return to File

1. General

Returns must be filed by permittees even when they do not have any transactions and do not owe any tax during a month or quarter. In these instances, simply indicate “no shipments” on your return.

It is not necessary to submit invoices with monthly or quarterly returns. The department will contact a permittee when an invoice is needed.

2. Liquor Tax Returns

Persons holding a liquor permit with the department who are required to file a monthly or quarterly beverage tax return must file Form AB-130 plus schedules electronically with the department. There is only one liquor tax return regardless of the nature of your business (unlike beer tax which has two different returns depending on the permit held with the department). Wine direct shippers file Form AB-130 plus schedules on a quarterly basis electronically with the department.

Note: All alcohol beverages reportable on a liquor tax return must be expressed in liters.

- *E-Filing of Liquor Tax Returns* – Effective with October 2008 tax returns, the Wisconsin Department of Revenue requires that the Wisconsin Distilled Spirits, Cider and Wine Tax Returns (Form AB-130 and supporting schedules) to be filed electronically. The department has two options for electronic filing: Liquor Tax Free File and XML File Transmission. Links to these two methods along with additional information are available on the Liquor Tax homepage at www.revenue.wi.gov/html/liquor.html on the Department’s website.

- *Brand and Type Schedule* – Permittees liable for paying the tax on **distilled spirits** to the department must submit with their monthly reports a schedule listing distilled

spirits (by brand and type) shipped to Wisconsin that month electronically, (Form AB-132).

- *Out-of-State Shippers Holding More Than One Permit* – Out-of-state shippers holding more than one permit with the department should electronically file one monthly liquor tax return (Form AB-130) reporting all liquor transactions on a consolidated basis. Shippers should notify the department of the location from which the consolidated return will be filed.

3. Beer Tax Returns

The two beer tax returns are:

- a. Wisconsin Brewery Fermented Malt Beverage Tax Return, Form BT-100.
- b. Wisconsin Fermented Malt Beverage Tax Return, Form BT-104.

All beer reportable on the Forms BT-100 and 104 must be expressed in barrels.

4. Common Carrier Return

Common carriers that operate in Wisconsin (for example, trains, and airplanes), on which alcohol beverages are consumed, must file a quarterly return with the department and pay the tax on the beverages consumed in Wisconsin. Carriers are not required to obtain a permit from the department. The return (Form AB-154) is a combination return on which they report all alcohol beverage sales in Wisconsin and compute other alcohol beverage taxes due.

Call us at (608) 266-6702 if you have any questions about preparing and e-filing alcohol beverage tax returns.

C. Due Date Of Returns

Your tax return is due 15 days after the end of the month or quarter following the month or quarter covered by your return. For example, a return for the month of September is due October 15. To be

timely filed, a report must be postmarked by a United States Post Office on or before its due date and received by the department within five days of the due date.

Caution: A postage meter is not an acceptable substitute for an official postmark of a United States Post Office for determining if a return is timely filed.

You may use certain private delivery services designated by the IRS to meet the Wisconsin “timely filing” rule for returns and payments. The private delivery services include only the following:

- DHL Express (DHL): DHL Same Day service, DHL Next Day 10:30 am, DHL Next Day 12:00 pm, DHL Next Day 3:00 pm and DHL 2nd Day service.
- Federal Express (FedEx): FedEx Priority Overnight, FedEx Standard Overnight, FedEx 2Day, FedEx International Priority, and FedEx International First.
- United Parcel Service (UPS): UPS Next Day Air, UPS Next Day Air Saver, UPS 2nd Day Air, UPS 2nd Day Air A.M., UPS Worldwide Express Plus, and UPS Worldwide Express.

The private delivery service can tell you how to obtain written proof of the mailing date.

D. Where To File Returns

Beer tax returns and accompanying remittances should be sent to:

Wisconsin Department of Revenue
Excise Tax Section
Mail Stop 5-107
PO Box 8900
Madison, WI 53708-8900

Private delivery services, cannot deliver items to post office boxes. Send items to the department at 2135 Rimrock Road, Madison 53713 if using a private delivery service.

E. Electronic Funds Transfer

Taxes can be paid to the department by electronic funds transfer (EFT). Information about EFT can be obtained by calling (608) 264-9918 or online at www.revenue.wi.gov/faqs/pcs/eft.html.

F. Late-Filed Returns

Returns that are not timely filed are subject to the following statutory charges:

1. A mandatory \$10 late-filing fee.
2. Interest on the tax due at the rate of 1.5% per month calculated from the due date of the return until date of payment.
3. A penalty of 5% of the tax due for each month or fraction of a month the required return is not filed (not exceeding 25% of the tax due).

G. Revocation Of Permits

It is very important that beverage tax permittees file their tax returns timely and pay any tax due. Permittees with poor filing and/or payment records may have their permit(s) revoked by the department.

VII. HOW TO CORRECT A PRIOR RETURN

If you need to change a return previously filed for beer taxes, send your "corrected" return plus schedules labeled "corrected" and any remittance to the department at the following address:

Wisconsin Department of Revenue
Excise Tax Section
Mail Stop 5-107
PO Box 8900
Madison, WI 53708-8900

If you need to change a return previously filed for liquor taxes, this is done electronically. More information on this can be found at www.revenue.wi.gov/html/liquor.html.

VIII. REFUNDS OF TAXES PAID

Permittees may receive a beverage tax refund for the following:

- A. Beer and liquor spoiled or unfit for consumption. File Form AB-605 with the department.
- B. Beer and liquor shipped to wholesalers outside Wisconsin. Send a letter to department requesting refund and include invoices showing the out-of-state destination.
- C. Liquor supplied to hospitals for medicinal purposes or to institutions of learning or museums for use other than as a beverage.
- D. Wine sold for sacramental purposes.
- E. Beer sold to the Armed Forces. File Form BT-612 plus invoices, with department.

To obtain the forms noted above, call (608) 266-6702 or download the form from the department's web site at www.revenue.wi.gov.

IX. RECORD KEEPING

You must keep a complete copy of your returns and all records used in preparing your returns for at least four years. The records you keep must enable you and the department to determine the correct amount of your tax liability.

The required records include, but are not limited to, product manufactured, purchases, receipts, inventories, sales (taxable and exempt), shipments to permittees in other states, and product returned to the manufacturer as unsalable. You are required to keep accurate records of all types of product on hand, and to take and record a physical inventory of each product on hand at each location at the close of business on the last day of every month. If you make nontaxable sales, you must maintain records of these sales, including the name and address of the purchaser, date of sale, amount of product sold, and statement that the tax was not included in the invoice price. Your records must be kept on the premises described on your permit and in a manner easily accessible for review by department representatives.

Caution: When records are not maintained, Wisconsin law presumes that **all** products you purchase or receive are subject to tax without benefit of any deductions. Therefore, it is very important that you maintain sufficient records to show how you determined your tax liability. Call the department at (608) 266-7453 if you have any questions about what records to keep.

X. FILING INCORRECT RETURNS, CRIMINAL CHARGES, AND DELINQUENT FEE

- *Incorrect Returns* – The following interest and penalties may be applied when you file incorrect tax returns:
 1. Unpaid taxes bear interest at the rate of 12% per year.
 2. Refunded taxes bear interest at the rate of 9% per year.
 3. Negligence penalty of 25% of the additional tax due if there is negligence in filing a return.
 4. Fraud penalty of 50% of the tax due if there is intent to defeat or evade the tax.

When an incorrect return is filed late, the statutory late-filing fee, interest, and penalty will also be applied (see Part VI).

- *Other Charges* – The following violations may result in additional charges being brought against a person:
 - Filing a false or fraudulent return or helping another person to do so with the intent to defeat or evade the tax.
 - Failing to keep the records required by the department.
 - Refusing to allow the examination or inspection of business premises and records.
 - Displaying or using a permit known to be fictitious, canceled, revoked, or altered.

- *Delinquent Fee* – If you do not pay an amount due by its due date, the amount due may be subject to a delinquent tax collection fee. The fee is the greater of \$35 or 6.5% of the unpaid tax, interest, and penalties that become subject to the delinquent tax collection action.

XI. BEER PRODUCTION AND LIQUOR STATISTICS

Every month, the department compiles statistics of Wisconsin brewery production and beer shipments into Wisconsin, along with winery and liquor statistical reports. By statute, these statistical reports are available to the public. The reports can be found at www.revenue.wi.gov/ise/excise.html.

XII. BEVERAGE TAX EVASION

Persons who wish to report suspected cases of beverage tax evasion may contact the Wisconsin Department of Revenue at (608) 266-6757.

XIII. INDIVIDUALS BRINGING LIQUOR INTO WISCONSIN

Under Wisconsin law, no person may bring any liquor (distilled spirits and wine) into Wisconsin unless that person holds a valid liquor permit issued by the Wisconsin Department of Revenue. However, the law contains the following exceptions for individuals (not available to businesses):

1. Individuals who change their domicile and move to Wisconsin from another state or foreign country may bring liquor into Wisconsin without a permit or payment of the Wisconsin liquor tax providing the liquor is part of their household goods.
2. Individuals who have been in a foreign country for at least 48 hours may bring into Wisconsin no more than four liters of liquor in sealed original containers without payment of the Wisconsin liquor tax. In addition, the liquor must be in that individual's immediate possession and may not be sent, shipped, or carried into Wisconsin in some other manner.
3. An active duty member of the military who has been out of the country for duty or training for at

least 48 hours may bring into Wisconsin no more than 16 liters of liquor in sealed original containers without payment of the Wisconsin liquor tax. The liquor must be in that individual's immediate possession and may not be sent, shipped, or carried into Wisconsin in some other manner.

Any person or individual who violates the above provisions will have the liquor confiscated and may be subject to monetary penalties and possible imprisonment.

XIV. REQUESTING ADDITIONAL REPORTING FORMS AND ASSISTANCE

- *Tax Forms Requests* – Call (608) 266-6702, FAX (608) 261-7049, or download the form from the department's website at www.revenue.wi.gov.

- *Questions About Preparing Beverage Tax Returns and Wisconsin's Beverage Tax Laws* – Call (608) 266-6702 or 266-7453, FAX your questions to (608) 261-7049, or e-mail excise@revenue.wi.gov.
- *Questions About Obtaining an Alcohol Beverage Permit from the Department* – Call (608) 261-6435, FAX your questions to (608) 261-7049, or e-mail excise@revenue.wi.gov.

You may also visit the department at:

2135 Rimrock Road
Madison, WI 53713

or write to:

Excise Tax Section
Mail Stop 5-107
PO Box 8900
Madison, WI 53708-8900

E-mail: excise@revenue.wi.gov

Appendix A

Conversion factors for converting case sizes to liters for your alcohol beverage tax return

Distilled Spirits		
No. of Bottles	Bottle Size	Liters Per Case
6	1.75 liters	10.5 liters
12	1 liters	12.0 liters
12	750 milliliters	9.0 liters
24	500 milliliters	12.0 liters
24	375 milliliters	9.0 liters
48	200 milliliters	9.6 liters
48	100 milliliters	4.8 liters
120	50 milliliters	6.0 liters

Wine		
No. of Bottles	Bottle Size	Liters Per Case
4	4 liters	16.0 liters
4	3 liters	12.0 liters
6	1.5 liters	9.0 liters
12	1 liters	12.0 liters
12	750 milliliters	9.0 liters
24	500 milliliters	12.0 liters
24	375 milliliters	9.0 liters
48	187 milliliters	9.0 liters
24	12 ounces	8.51715 liters

To convert gallons to liters multiply, by 3.7854

Appendix B

Conversion factors for converting gallons and liters to barrels for you monthly fermented malt beverage return

Barrels Size	Barrels
1/6 barrel	0.167
1/4 barrel	0.250
1/2 barrel	0.500
31 gallons	1.000

Ounces Per Bottle	No. of Bottles Per Case	Barrels Per Case
12	6	0.01815
12	12	0.03629
12	18	0.05443
12	24	0.07258
40	12	0.12097

Ounces per bottle X number of bottles per case = ounces per case
 Ounces per case divided by 3968 = barrels per case

Gallons decimal equivalent = number of gallons X 0.032258

Liter decimal equivalent = number of gallons X 0.0085216

1 liter = 33.814 ounces

1 gallon = 128 ounces or 3.7854 liters

1 barrel = 3968 ounces or 117.374 liters