

Audit Report Abstinence

February 2022

Type BEP20

Network BSC

Address 0x765740CcdDE6CB148D2dCbCbE5d465A8eeC40A0c

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Contract Review

Contract Name	AbstinenceToken
Compiler Version	v0.8.10+commit.fc410830
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0x765740CcdDE6CB148D 2dCbCbE5d465A8eeC40A0c
Symbol	ABSC
Decimals	9
Total Supply	10,000,000,000
Source	contract.sol
Domain	abstinence.io

Audit Updates

Initial Audit	1st February 2022
Corrected	



Contract Analysis

CriticalMediumMinorPass

Severity	Code	Description
•	ST	Contract Owner is not able to stop or pause transactions
•	OCTD	Contract Owner is not able to transfer tokens from specific address
•	OTUT	Owner Transfer User's Tokens
•	ELFM	Contract Owner is not able to increase fees more than a reasonable percent (25%)
•	ULTW	Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent
•	MT	Contract Owner is not able to mint new tokens
•	ВТ	Contract Owner is not able to burn tokens from specific wallet
•	ВС	Contract Owner is not able to blacklist wallets from selling



Contract Diagnostics

CriticalMediumMinor

Severity	Code	Description
•	CO	Code Optimization
•	L01	Public Function could be Declared External
•	L02	State Variables could be Declared Constant
•	L04	Conformance to Solidity Naming Conventions
•	L09	Dead Code Elimination
•	L07	Missing Events Arithmetic



CO - Code Optimization

Criticality	minor
Location	contract.sol#L628

Description

There are code segments that could be optimized. A segment may be optimized so that it becomes a smaller size, consumes less memory, executes more rapidly, or performs fewer operations.

The assertion amount <= _maxTxAmount can be executed twice in the same function. The first execution fulifies the expression from != owner() && to != owner().

The second execution fulifies the expression **from** != owner() && to != owner() && to != uniswapV2Pair. If the first expression is a subset of the second expression. Hence, the second assertion is redundant.

```
if(from != owner() && to != owner())
    require(amount <= _maxTxAmount, "Transfer amount exceeds the maxTxAmount.");

if(from != owner() && to != owner() && to != uniswapV2Pair){
    require(amount <= _maxTxAmount, "Transfer amount exceeds the maxTxAmount");
    uint256 walletCurrentBalance = balanceOf(to);
    require(walletCurrentBalance + amount <= _maxWalletSize, "Exceeds maximum wallet token amount");
}</pre>
```

Recommendation

Rewrite some code segments so the runtime will be more performant.

The assertion amount <= _maxTxAmount could be removed from the second statement.



L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L965,L920,L916 and 22 more

Description

Public functions that are never called by the contract should be declared external to save gas.

setSwapAndLiquifyEnabled includeInFee excludeFromFee

Recommendation

Use the external attribute for functions never called from the contract



L02 - State Variables could be Declared Constant

Criticality	minor
Location	contract.sol#L419,L422,L420 and 6 more

Description

Constant state variables should be declared constant to save gas.

teamWallet deadAddress charityWallet

Recommendation

Add the constant attribute to state variables that never change.



L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contract.sol#L457,L456,L453 and 13 more

Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow _ at the beginning of the mixed_case match for private variables and unused parameters.

```
_maxWalletSize
_maxTxAmount
_teamFee
...
```

Recommendation

Follow the Solidity naming convention. https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions



L09 - Dead Code Elimination

Criticality	minor
Location	contract.sol#L85,L81,L19 and 7 more

Description

Functions that are not used in the contract, and make the code's size bigger.

```
mod
_msgData
sendValue
...
```

Recommendation

Remove unused functions.

L07 - Missing Events Arithmetic

Criticality	minor
Location	contract.sol#L937

Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
minimumTokensBeforeSwap = _minimumTokensBeforeSwap
```

Recommendation

Emit an event for critical parameter changes.





Contract Functions

Contract	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
SafeMath	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
	mod	Internal		
	mod	Internal		
Address	Library			
	isContract	Internal		
	sendValue	Internal	✓	
	functionCall	Internal	✓	
	functionCall	Internal	✓	
	functionCallWithValue	Internal	✓	
	functionCallWithValue	Internal	1	



	_functionCallWithValue	Private	✓	
Ownable	Implementation	Context		
	<constructor></constructor>	Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	getUnlockTime	Public		-
	getTime	Public		-
	lock	Public	✓	onlyOwner
	unlock	Public	✓	-
IUniswapV2Fa ctory	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	1	-
	setFeeTo	External	1	-
	setFeeToSetter	External	1	-
IUniswapV2Pa ir	Interface			
	name	External		-
	symbol	External		-
	decimals	External		-
	totalSupply	External		-
	balanceOf	External		-
	allowance	External		-
	approve	External	1	-
	transfer	External	1	-
	transferFrom	External	1	-
	DOMAIN_SEPARATOR	External		-
	PERMIT_TYPEHASH	External		_



	nonces	External		-
	permit	External	✓	-
	MINIMUM_LIQUIDITY	External		-
	factory	External		-
	token0	External		-
	token1	External		-
	getReserves	External		-
	price0CumulativeLast	External		-
	price1CumulativeLast	External		-
	kLast	External		-
	burn	External	1	-
	swap	External	√	-
	skim	External	✓	-
	sync	External	1	-
	initialize	External	✓	-
IUniswapV2Ro uter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	✓	-
	removeLiquidityETH	External	1	-
	removeLiquidityWithPermit	External	1	-
	removeLiquidityETHWithPermit	External	√	-
	swapExactTokensForTokens	External	✓	-
	swapTokensForExactTokens	External	✓	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	✓	-
	swapExactTokensForETH	External	✓	-
	swapETHForExactTokens	External	Payable	-
	quote	External		-
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		-



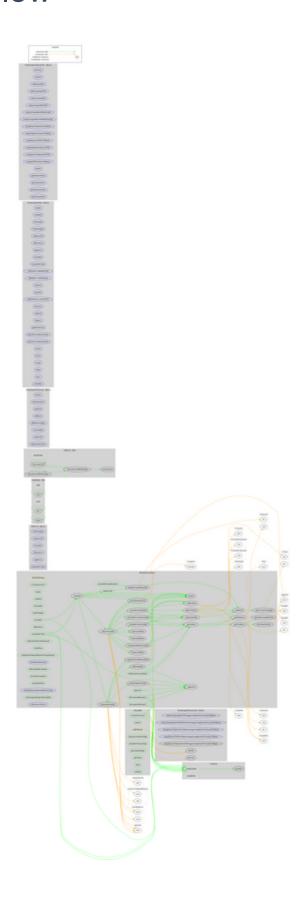
	getAmountsIn	External		-
IUniswapV2Ro uter02	Interface	IUniswapV2 Router01		
	removeLiquidityETHSupportingFeeOn TransferTokens	External	✓	-
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokensSupporti ngFeeOnTransferTokens	External	√	-
	swapExactETHForTokensSupporting FeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupporting FeeOnTransferTokens	External	✓	-
AbstinenceTok en	Implementation	Context, IERC20, Ownable		
	<constructor></constructor>	Public	1	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	1	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	1	-
	isExcludedFromReward	Public		-
	totalFees	Public		-
	minimumTokensBeforeSwapAmount	Public		-
	reflectionFromToken	Public		-
	tokenFromReflection	Public		-
	excludeFromReward	Public	✓	onlyOwner
	includeInReward	External	✓	onlyOwner
	_approve	Private	✓	



_transfer	Private	1	
swapAndLiquify	Private	1	lockTheSwap
transferToAddressET	H Private	1	
swapTokensForEth	Private	1	
addLiquidity	Private	✓	
_tokenTransfer	Private	1	
_transferStandard	Private	1	
takeCharity	Private	1	
_transferToExcluded	Private	✓	
_transferFromExclude	ed Private	1	
_transferBothExclude	ed Private	✓	
_reflectFee	Private	1	
_getValues	Private		
_getTValues	Private		
_getRValues	Private		
_getRate	Private		
_getCurrentSupply	Private		
_takeLiquidity	Private	1	
calculateTaxFee	Private		
calculateLiquidityFee	Private		
calculateBurnFee	Private		
removeAllFee	Private	1	
setSaleAllFee	Private	✓	
restoreAllFee	Private	1	
isExcludedFromFee	Public		-
excludeFromFee	Public	1	onlyOwner
includeInFee	Public	1	onlyOwner
setMinimumTokensB	eforeSwap External	1	onlyOwner
setSwapAndLiquifyE	nabled Public	1	onlyOwner
<receive ether=""></receive>	External	Payable	-



Contract Flow





Domain Info

Domain Name	abstinence.io
Registry Domain ID	1510fd5f02f84d128b86bd3597c3acb5-DONUTS
Creation Date	2022-01-13T15:31:44Z
Updated Date	2022-01-31T13:06:35Z
Registry Expiry Date	2023-01-13T15:31:44Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain has been created 19 days before the creation of the audit. It will expire in 12 months.

There is no public billing information, the creator is protected by the privacy settings.



Summary

Abstinence is aiming to build an ecosystem that provides one stop to all your crypto experiences. The Project has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. The fees are fixed and cannot be changed.



Disclaimer

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About Coinscope

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

Coinscope is aiming to make crypto discoverable and efficient globally. It provides all the essential tools to assist users draw their own conclusions.



The Coinscope.co team

https://www.coinscope.co