

# Audit Report Cthulhu Token

January 2022

Type BEP20

Network BSC

Address 0x077f0344956245a60d2bb7aed28108d13fb79d0d

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# **Contract Review**

Contract Name	CthulhuToken
Compiler Version	v0.8.4+commit.c7e474f2
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0x077f0344956245a60d2b b7aed28108d13fb79d0d
Symbol	CTHL
Decimals	9
Total Supply	10,000,000,000
Source	contract.sol
Domain	cthulhubsc.com

# **Audit Updates**

Initial Audit	25th January 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
•	L04	Conformance to Solidity Naming Conventions



# L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contract.sol#L455,L453,L450 and 7 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.

```
altarAccount
furnaceAccount
_uniswapV2Pair
...
```

#### Recommendation

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



# **Contract Functions**

Contract	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
IUniswapV2Ro uter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	1	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	1	-
	removeLiquidityETH	External	1	-
	removeLiquidityWithPermit	External	1	-
	removeLiquidityETHWithPermit	External	1	-
	swapExactTokensForTokens	External	✓	-
	swapTokensForExactTokens	External	1	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	1	-
	swapExactTokensForETH	External	✓	-
	swapETHForExactTokens	External	Payable	-
	quote	External		-
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		-
	getAmountsIn	External		-
IUniswapV2Ro uter02	Interface	IUniswapV2 Router01		
	removeLiquidityETHSupportingFeeOn TransferTokens	External	<b>✓</b>	-
	removeLiquidityETHWithPermitSuppor tingFeeOnTransferTokens	External	1	-



	swapExactTokensForTokensSupportin gFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingF eeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingF eeOnTransferTokens	External	✓	-
IUniswapV2Pai r	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	1	-
	MINIMUM_LIQUIDITY	External		-
	factory	External		-
	token0	External		-
	token1	External		-
	getReserves	External		-
	price0CumulativeLast	External		-
	price1CumulativeLast	External		-
	kLast	External		-
	mint	External	1	-
	burn	External	1	-
	swap	External	1	-
	skim	External	1	-
	sync	External	<b>✓</b>	-
	initialize	External	1	-



IUniswapV2Fa ctory	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	1	-
	setFeeTo	External	1	-
	setFeeToSetter	External	<b>✓</b>	-
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	1	-
Context	Implementation			
	_msgSender	Internal		
Ownable	Implementation	Context		
	<constructor></constructor>	Public	1	-
	owner	Public		-
	renounceOwnership	External	1	onlyOwner
	transferOwnership	External	<b>✓</b>	onlyOwner
	_transferOwnership	Internal	<b>✓</b>	
CthulhuToken	Implementation	Context, IERC20, Ownable		
	<constructor></constructor>	Public	1	-
	<receive ether=""></receive>	External	Payable	-
	name	External		-
	symbol	External		-



UniswapV2Pair	decimals	Public		-
taxAltar External	uniswapV2Pair	External		-
altarOfCthulhu External - taxReward External - taxLiquify External - taxLiquify External - taxAltarDecimals External - taxAltarDecimals External - taxRewardDecimals External - taxRewardDecimals External - taxRewardDecimals External - taxLiquifyDecimals External - autolncinerateEnabled External - autoSacrificeEnabled External - rewardEnabled External - autoSwapAndLiquifyEnabled External - minTokensBeforeSwap External - totalSupply External - totalSupply External - totalIncinerated External - totalTokensLockedInLiquidity External - totalTokensLockedInLiquidity External - totalThLockedInLiquidity External - isExcludedFromReward External - isExcludedFromReward External - allowance Public - approve External - increaseAllowance External - increaseAllowance External - increaseAllowance External - increnate Internal - incren	taxFurnace	External		-
taxReward         External         -           taxLiquify         External         -           taxFurnaceDecimals         External         -           taxAltarDecimals         External         -           taxRewardDecimals         External         -           autoIncinerateEnabled         External         -           autoSacrificeEnabled         External         -           rewardEnabled         External         -           autoSwapAndLiquifyEnabled         External         -           minTokensBeforeSwap         External         -           totalSupply         External         -           currentSupply         External         -           totalIncinerated         External         -           totalTokensLockedInLiquidity         External         -           totalTHLockedInLiquidity         External         -           totalTokensLockedInLiquidity         External         -	taxAltar	External		-
taxLiquify         External         -           taxFurnaceDecimals         External         -           taxAltarDecimals         External         -           taxLiquifyDecimals         External         -           autoIncinerateEnabled         External         -           autoSacrificeEnabled         External         -           rewardEnabled         External         -           rewardEnabled         External         -           autoSwapAndLiquifyEnabled         External         -           minTokensBeforeSwap         External         -           totalSupply         External         -           currentSupply         External         -           currentSupply         External         -           totalIncinerated         External         -           totalIncinerated         External         -           totalTokensLockedInLiquidity         External         -           totalETHLockedInLiquidity         External         -           balanceOf         Public         -           isExcludedFromReward         External         -           isExcludedFromFee         External         -           transfer         External	altarOfCthulhu	External		-
taxFurnaceDecimals  taxAltarDecimals  External  taxRewardDecimals  External  taxLiquifyDecimals  External  autoIncinerateEnabled  External  autoSacrificeEnabled  External  External  autoSwapAndLiquifyEnabled  External  autoSwapAndLiquifyEnabled  External  ininTokensBeforeSwap  External  totalSupply  External  currentSupply  External  totalFacrificed  External  totalFacrificed  External  totalTokensLockedInLiquidity  External  totalETHLockedinLiquidity  External  External  currentSupply  currentSupply  currentSupply  currentSupply  currentSu	taxReward	External		-
taxAltarDecimals         External         -           taxRewardDecimals         External         -           taxLiquifyDecimals         External         -           autoIncinerateEnabled         External         -           autoSacrificeEnabled         External         -           rewardEnabled         External         -           autoSwapAndLiquifyEnabled         External         -           minTokensBeforeSwap         External         -           totalSupply         External         -           currentSupply         External         -           currentSupply         External         -           totalIncinerated         External         -           totalSacrificed         External         -           totalTokensLockedInLiquidity         External         -           totalTokensLockedInLiquidity         External         -           balanceOf         Public         -           isExcludedFromReward         External         -           isExcludedFromReward         External         -           isExcludedFromFee         External         -           transfer         External         -           approve         External	taxLiquify	External		-
taxRewardDecimals         External         -           taxLiquifyDecimals         External         -           autoIncinerateEnabled         External         -           autoSacrificeEnabled         External         -           rewardEnabled         External         -           rewardEnabled         External         -           autoSwapAndLiquifyEnabled         External         -           minTokensBeforeSwap         External         -           totalSwaphy         External         -           currentSupply         External         -           currentSupply         External         -           totalSacrificed         External         -           totalSacrificed         External         -           totalTokensLockedInLiquidity         External         -           totalETHLockedInLiquidity         External         -           balanceOf         Public         -           isExcludedFromReward         External         -           isExcludedFromFee         External         -           transfer         External         -           allowance         Public         -           approve         External         -	taxFurnaceDecimals	External		-
taxLiquifyDecimals autoIncinerateEnabled External autoSacrificeEnabled External External  rewardEnabled External  autoSwapAndLiquifyEnabled External  minTokensBeforeSwap External  totalSupply External  currentSupply External  totalIncinerated External  totalSacrificed External  totalTokensLockedInLiquidity External  balanceOf Public  isExcludedFromFee External  transfer External  transfer External  currentSupply External  -  totalTokensLockedInLiquidity External -  isExcludedFromFee External -  transfer External -  increaseAllowance External -  increaseAllowance Lincinerate  Internal  -  internal  /  -  internal /  internal /  -  internal /  internal internal /  internal /  internal /	taxAltarDecimals	External		-
autolncinerateEnabled External - autoSacrificeEnabled External - rewardEnabled External - autoSwapAndLiquifyEnabled External - minTokensBeforeSwap External - totalSupply External - currentSupply External - totalIncinerated External - totalSacrificed External - totalTokensLockedInLiquidity External - totalTokensLockedInLiquidity External - isExcludedFromReward External - isExcludedFromReward External - isExcludedFromFee External - isExcludedFromFee External - increaseAllowance	taxRewardDecimals	External		-
autoSacrificeEnabled External - rewardEnabled External - autoSwapAndLiquifyEnabled External - minTokensBeforeSwap External - totalSupply External - currentSupply External - totalIncinerated External - totalSacrificed External - totalTokensLockedInLiquidity External - totalTokensLockedInLiquidity External - totalETHLockedInLiquidity External - isExcludedFromReward External - isExcludedFromReward External - isExcludedFromFee External - transfer External - transfer External - increaseAllowance External - increaseAllowance External - increase Internal - increnate Internal - approve Internal - Internal	taxLiquifyDecimals	External		-
rewardEnabled	autoIncinerateEnabled	External		-
autoSwapAndLiquifyEnabled External - minTokensBeforeSwap External - totalSupply External - currentSupply External - totalIncinerated External - totalSacrificed External - totalTokensLockedInLiquidity External - totalETHLockedInLiquidity External - balanceOf Public - isExcludedFromReward External - isExcludedFromFee External - transfer External - allowance Public - approve External / - transferFrom External / - increaseAllowance External / - decreaseAllowance External / - Lincinerate Internal / - approve Inte	autoSacrificeEnabled	External		-
minTokensBeforeSwap         External         -           totalSupply         External         -           currentSupply         External         -           totalIncinerated         External         -           totalSacrificed         External         -           totalTokensLockedInLiquidity         External         -           totalETHLockedInLiquidity         External         -           balanceOf         Public         -           isExcludedFromReward         External         -           isExcludedFromReward         External         -           transfer         External         -           allowance         Public         -           allowance         Public         -           approve         External         -           transferFrom         External         -           increaseAllowance         External         -           _increaseAllowance         External         -           _incinerate         Internal         -           _approve         Internal         -	rewardEnabled	External		-
totalSupply	autoSwapAndLiquifyEnabled	External		-
currentSupply External - totalIncinerated External - totalSacrificed External - totalTokensLockedInLiquidity External - balanceOf Public - isExcludedFromReward External - isExcludedFromRee External - allowance Public - approve External	minTokensBeforeSwap	External		-
totalIncinerated         External         -           totalSacrificed         External         -           totalTokensLockedInLiquidity         External         -           totalETHLockedInLiquidity         External         -           balanceOf         Public         -           isExcludedFromReward         External         -           isExcludedFromFee         External         -           transfer         External         -           allowance         Public         -           approve         External         -           transferFrom         External         -           increaseAllowance         External         -           decreaseAllowance         External         -           _incinerate         Internal         -           _approve         Internal         -	totalSupply	External		-
totalSacrificed External -  totalTokensLockedInLiquidity External -  totalETHLockedInLiquidity External -  balanceOf Public -  isExcludedFromReward External -  isExcludedFromFee External -  transfer External -  allowance Public -  approve External -  transferFrom External -  increaseAllowance External -  decreaseAllowance External -  jincinerate Internal -  _approve Internal -  location increase -  locati	currentSupply	External		-
totalTokensLockedInLiquidity External -  totalETHLockedInLiquidity External -  balanceOf Public -  isExcludedFromReward External -  isExcludedFromFee External -  transfer External  -  allowance Public -  approve External	totalIncinerated	External		-
totalETHLockedInLiquidity  balanceOf  Public  isExcludedFromReward  isExcludedFromFee  External  transfer  External  -  allowance  public  -  approve  External  furansferFrom  External  -  External  -  External  -  External  -  IncreaseAllowance  External  IncreaseAllowance  Internal  -  Internal	totalSacrificed	External		-
balanceOf  isExcludedFromReward  isExcludedFromFee  External  transfer  External  Allowance  Approve  External  External  Approve  Approve  Approve  Internal  Approv	totalTokensLockedInLiquidity	External		-
isExcludedFromReward  isExcludedFromFee  External  transfer  External  √  allowance  public  approve  External  √  transferFrom  External  increaseAllowance  External  ✓  decreaseAllowance  External  ✓  approve  External  ✓  approve  External  ✓  approve  Internal  ✓  approve  Internal  ✓  approve  Internal  ✓  Internal  ✓  Internal  ✓  Internal  Internal  ✓  Internal	totalETHLockedInLiquidity	External		-
isExcludedFromFee External - transfer External - allowance Public - approve External - transferFrom External - increaseAllowance External - decreaseAllowance External Incinerate Internalsacrifice Internalapprove Internal - Interna	balanceOf	Public		-
transfer External	isExcludedFromReward	External		-
allowance Public - approve External	isExcludedFromFee	External		-
approve External ✓ - transferFrom External ✓ - increaseAllowance External ✓ - decreaseAllowance External ✓incinerate Internal ✓sacrifice Internal ✓approve Internal ✓	transfer	External	✓	-
transferFrom External	allowance	Public		-
increaseAllowance External ✓ -  decreaseAllowance External ✓ -  _incinerate Internal ✓  _sacrifice Internal ✓  _approve Internal ✓	approve	External	✓	-
decreaseAllowance External ✓ -  _incinerate Internal ✓  _sacrifice Internal ✓  _approve Internal ✓	transferFrom	External	✓	-
_incinerate	increaseAllowance	External	✓	-
_sacrifice Internal ✓ _approve Internal ✓	decreaseAllowance	External	✓	-
_approve Internal ✓	_incinerate	Internal	✓	
	_sacrifice	Internal	✓	
transfer Internal /	_approve	Internal	✓	
_uansidi   Internal 🗸	_transfer	Internal	✓	



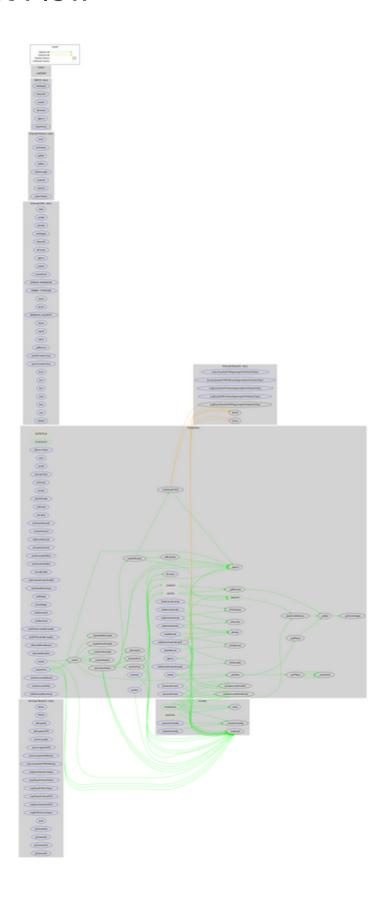
_afterTokenTransfer	Internal	✓	
_transferStandard	Private	1	
_transferToExcluded	Private	1	
_transferFromExcluded	Private	1	
_transferBothExcluded	Private	1	
incinerate	External	1	-
sacrifice	External	1	-
incinerateFrom	Public	1	-
sacrificeFrom	Public	<b>✓</b>	-
_excludeAccountFromReward	Public	1	onlyOwner
_includeAccountInReward	External	1	onlyOwner
excludeAccountFromFee	Public	<b>✓</b>	onlyOwner
includeAccountInFee	External	<b>√</b>	onlyOwner
airdrop	External	<b>√</b>	-
tokenFromReflection	Internal		
swapAndLiquify	Private	<b>✓</b>	lockTheSwap
swapTokensForEth	Private	1	
addLiquidity	Private	1	
_distributeFee	Private	1	
_getValues	Private		
_getTValues	Private		
_getRValues	Private		
_getRAmount	Private		
_getRate	Private		
_getCurrentSupply	Private		
_calculateTax	Private		
enableAutoIncinerate	External	<b>✓</b>	onlyOwner
enableAutoSacrifice	External	1	onlyOwner
enableReward	External	1	onlyOwner
enableAutoSwapAndLiquify	External	<b>✓</b>	onlyOwner
disableAutoIncinerate	External	1	onlyOwner
disableAutoSacrifice	External	<b>√</b>	onlyOwner
disableReward	External	1	onlyOwner
disableAutoSwapAndLiquify	External	<b>√</b>	onlyOwner
setMinTokensBeforeSwap	External	1	onlyOwner



setTaxFurnace	Public	✓	onlyOwner
setTaxAltar	Public	✓	onlyOwner
setTaxReward	Public	✓	onlyOwner
setTaxLiquify	Public	✓	onlyOwner



# **Contract Flow**





# Domain Info

Domain Name	cthulhubsc.com
Registry Domain ID	2653990813_DOMAIN_COM-VRSN
Creation Date	2021-11-10T18:47:22.000Z
Updated Date	2021-11-10T18:47:23.000Z
Registry Expiry Date	
Registrar WHOIS Server	whois.ionos.com
Registrar URL	http://ionos.com
Registrar	IONOS SE
Registrar IANA ID	83

The domain has been created 2 months before the creation of the audit.

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



# Summary

Cthulhu is a meme token. The token 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. There is also a limit of max 11% fees.

The contract contains a novel tax functionality. The "furnace" fee moves the taxed amount to the "furnaceAccount" address and removes the amount from the total supply. The "alter" fee moves the taxed amount to the "altarAccount" address. Hence, every trade will slightly decrease the total supply and the furnace/alter accounts value will be increased. This will have a side effect on the market cap metric.



### Disclaimer

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment.

Coinscope team provides no guarantees against the sale of team tokens or the removal of liquidity by the project audited in this document. Always Do your own research and protect yourselves from being scammed.

The Coinscope team has audited this project for general information and only expresses their opinion based on similar projects and checks from popular diagnostic tools. Under no circumstances did Coinscope receive a payment to manipulate those results or change the awarding badge that we will be adding in our website.

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The Coinscope team disclaims any liability for the resulting losses.



# **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