

# KISHIELD

Security Audit

**STEPINU Token**

May 1, 2022





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# Audit Summary

This report has been prepared for STEPINU Token on the Binance Chain network. KISHIELD provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Ensuring contract logic meets the specifications and intentions of the client without exposing the user's funds to risk.
- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Thorough line-by-line manual review of the entire codebase by industry experts.

# Project Overview

## Token Summary

Parameter	Result
Address	0x98711375803B78866a2f25b4a757fEfa12F61Ee4
Name	STEPINU
Token Tracker	STEPINU (STEPI)
Decimals	9
Supply	100,000,000
Platform	Binance Chain
compiler	v0.8.13+commit.abaa5c0e
Optimization	Yes with 200 runs
LicenseType	None
Language	Solidity
Codebase	<a href="https://bscscan.com/address/0x98711375803B78866a2f25b4a757fEfa12F61Ee4">https://bscscan.com/ address/0x98711375803B78866a2f25b4a757fEfa12F61Ee4</a>
Url	<a href="http://stepinu.app/">http://stepinu.app/</a>

## Main Contract Assessed

Name	Contract	Live
STEPINU	0x98711375803B78866a2f25b4a757fEfa12F61Ee4	Yes

# Smart Contract Vulnerability Checks

Vulnerability	Automatic Scan	Manual Scan	Result
Unencrypted Private Data On-Chain	Complete	Complete	✓ Low / No Risk
Code With No Effects	Complete	Complete	✓ Low / No Risk
Message call with hardcoded gas amount	Complete	Complete	✓ Low / No Risk
Hash Collisions With Multiple Variable Length Arguments	Complete	Complete	✓ Low / No Risk
Unexpected Ether balance	Complete	Complete	✓ Low / No Risk
Presence of unused variables	Complete	Complete	✓ Low / No Risk
Right-To-Left-Override control character (U+202E)	Complete	Complete	✓ Low / No Risk
Typographical Error	Complete	Complete	✓ Low / No Risk
DoS With Block Gas Limit	Complete	Complete	✓ Low / No Risk
Arbitrary Jump with Function Type Variable	Complete	Complete	✓ Low / No Risk
Insufficient Gas Griefing	Complete	Complete	✓ Low / No Risk
Incorrect Inheritance Order	Complete	Complete	✓ Low / No Risk
Write to Arbitrary Storage Location	Complete	Complete	✓ Low / No Risk
Requirement Violation	Complete	Complete	✓ Low / No Risk
Missing Protection against Signature Replay Attacks	Complete	Complete	✓ Low / No Risk
Weak Sources of Randomness from Chain Attributes	Complete	Complete	✓ Low / No Risk

Vulnerability	Automatic Scan	Manual Scan	Result
Authorization through tx.origin	Complete	Complete	✓ Low / No Risk
Delegatecall to Untrusted Callee	Complete	Complete	✓ Low / No Risk
Use of Deprecated Solidity Functions	Complete	Complete	✓ Low / No Risk
Assert Violation	Complete	Complete	✓ Low / No Risk
Reentrancy	Complete	Complete	✓ Low / No Risk
Unprotected SELFDESTRUCT Instruction	Complete	Complete	✓ Low / No Risk
Unprotected Ether Withdrawal	Complete	Complete	✓ Low / No Risk
Unchecked Call Return Value	Complete	Complete	✓ Low / No Risk
Outdated Compiler Version	Complete	Complete	✓ Low / No Risk
Integer Overflow and Underflow	Complete	Complete	✓ Low / No Risk
Function Default Visibility	Complete	Complete	✓ Low / No Risk

## Contract Ownership

The contract ownership of STEPINU is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address 0x3f3a5853e163d8afb56619178dbd8e9495367777 which can be viewed from:  
[HERE](#)

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner wallet is compromised this privileges could be exploited.

We recommend the team to renounce ownership at the right timing if possible, or gradually migrate to a timelock with governing functionalities in respect of transparency and safety considerations.



## Important Notes To The Users:

- The owner cannot stop Trading.
- The owner cannot mint tokens after intial deployment.
- Authorized addresses can trade when the trading is still not opened.
- There is a 0.5% static max tx amount for addresses that are not exempt from tx limit.
- There is a 1% variable max tokens per wallet for addresses that are not Authorized.
- There is a 60 second buy cooldown enforced to addresses that are not exempt from timelock.
- The contract does not have auto liquidity mechanism, stored fees are swap for bnb and sent to marketingWallet.
- Once the owner renounces ownership of the contract, none of the following are applicable.
- The owner can add/remove WALLETS and contracts addresses to the bot blacklist.
- The owner can set the buy fee up to 14% and the sell fee up to 30%
- The owner can burn tokens from the contract.
- The onwer can change the max tokens per wallet without restricions.
- The owner can enable/disable and change the interval with no restrictions for the tx cooldown mechanism.
- The owner can withdraw BNB and tokens from the contract.
- No high-risk Exploits/Vulnerabilities Were Found in token Source Code other than Owner Privileges.

# Audit Passed





# Findings Summary

## Classification of Issues

Severity	Description
● High	Exploits, vulnerabilities or errors that will certainly or probabilistically lead towards loss of funds, control, or impairment of the contract and its functions. Issues under this classification are recommended to be fixed with utmost urgency
● Medium	Bugs or issues with that may be subject to exploit, though their impact is somewhat limited. Issues under this classification are recommended to be fixed as soon as possible.
● Low	Effects are minimal in isolation and do not pose a significant danger to the project or its users. Issues under this classification are recommended to be fixed nonetheless.
● Info	Consistency, syntax or style best practices. Generally pose a negligible level of risk, if any.

## Findings

Severity	Found
● High	0
● Medium	0
● Low	0
● Info	6
Total	6

# Findings

## Variables could be declared as constant

ID	Severity	Contract	Function
01	Informational	STEPINU	variables DEAD, ZERO, _totalSupply, feeDenominator

### Description

Gas Optimization. Variables that are never changed could be declared as constant.

### Recommendation

We recommend declaring those variables as constant.

## Public function that could be declared external

ID	Severity	Contract	Function
02	Informational	STEPINU	Functions authorize, unauthorize, transferOwnership, swapToken, getCirculatingSupply, checkBot, cooldownEnabled, blacklistBlockEnabled, rescueToken.

### Description

Gas Optimization. Public function that could be declared external

### Recommendation

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

## Missing events arithmetic

ID	Severity	Contract	Function
03	Informational	STEPINU	Missing events for setFee, setSwapThresholdAmount, setMaxWalletPercent, cooldownEnabled

### Description

Functions that change critical arithmetic parameters should emit an event.

### Recommendation

Emit corresponding events for critical parameter changes.

## Assignment with no effects

ID	Severity	Contract	Function
04	Informational	STEPINU	Variables buyCooldownEnabled = false

### Description

Bools variables in solidity are set to false by default.

### Recommendation

We recommend deleting the initialization of the boolean variable to false

## Unused Variable

ID	Severity	Contract	Function
05	● Informational	STEPINU	Variable buyLimit

### Description

Variables are never used in the contract logic in a meaningful way.

### Recommendation

We recommend deleting this variable.

## Code with no effects

ID	Severity	Contract	Function
06	● Informational	STEPINU	Function setBlacklistEnabled

### Description

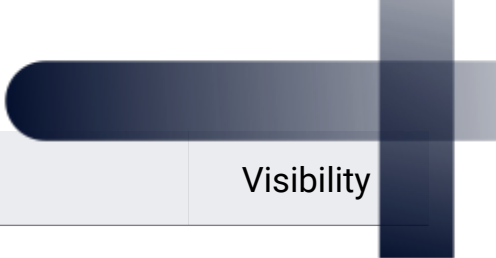
setBlacklistEnabled can never be called as blacklistEnabled is set to true at deployment time.

### Recommendation

We recommend deleting the require statement on setBlacklistEnabled.

## Privileged Functions (onlyOwner)

Function Name	Parameters	Visibility
authorize	address adr	public
unauthorize	address adr	public
transferOwnership	address adr	public
swapToken	none	public
openTrade	none	external
setBot	address _address, bool toggle	external
setIsFeeExempt	address holder, bool exempt	external
setFee	uint256 _sellFeeRate, uint256 _buyFeeRate	external
manualBurn	uint256 amount	external
setMarketingWallet	address _marketingWallet	external
removeBuyLimit	none	external
setBlacklistEnabled	none	external
setSwapThresholdAmount	uint256 amount	external
setMaxWalletPercent	uint256 maxWallPercent	external
setIsTxLimitExempt	address holder, bool exempt	external
setIsTimelockExempt	address holder, bool exempt	external
cooldownEnabled	bool _status, uint8 _interval	public



Function Name	Parameters	Visibility
blacklistBlockEnabled	bool _status	public
clearStuckBalance	uint256 amountPercentage, address adr	external
rescueToken	address tokenAddress, uint256 tokens	public

# Statistics

## Liquidity Info

Parameter	Result
Pair Address	0x6b3F2F1EC08422c7d29fd9E8d204Cc48878736B6
STEPI Reserves	0.00 STEPI
BNB Reserves	0.00 BNB
Liquidity Value	\$0 USD

## Token (STEPI) Holders Info

Parameter	Result
STEPI Percentage Burnt	0.00%
STEPI Amount Burnt	0 STEPI
Top 10 Percentage Own	100.00%
Top 10 Amount Owned	100,000,000 STEPI
Top 10 Aprox Value	\$NaN USD

## LP (STEPI/BNB) Holders Info

Parameter	Result
STEPI/BNB % Burnt	0.00%
STEPI/BNB Amount Burnt	0 STEPI
Top 10 Percentage Owned	0.00%
Top 10 Amount Owned	0 STEPI
Locked Tokens Percentage	0.00%
Locked Tokens Amount	0 STEPI

\* All the data displayed above was taken on-chain at block 17434477

\* The tokens on industry-standard burn wallets are not included on the top 10 wallets calculations

## Liquidity Ownership

The token does not have liquidity at the moment of the audit, block 17434477

# KISHIELD





## Disclaimer

KISHIELD has conducted an independent audit to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the codes that were provided for the scope of this audit. This audit report does not constitute agreement, acceptance or advocacy for the Project that was audited, and users relying on this audit report should not consider this as having any merit for financial advice in any shape, form or nature. The contracts audited do not account for any economic developments that may be pursued by the Project in question, and that the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are completely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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