KISHIELD

Security Audit

MonsterToys Token

April 7, 2022

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Audit Summary

This report has been prepared for MonsterToys 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	0x5bf9a89aab5edaf58540116b43986b758d957813
Name	MonsterToys
Token Tracker	MonsterToys (MONSTER)
Decimals	9
Supply	1,000,000,000,000,000
Platform	Binance Chain
compiler	v0.8.9+commit.e5eed63a
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://bscscan.com/address/0x5bf9a89aab5edaf58540116b43986b758d957813
Url	https://MonsterToys.io/

Main Contract Assessed

Name	Contract	Live
MonsterToys	0x5bf9a89aab5edaf58540116b43986b758d957813	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 MonsterToys 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 0x8fb1cC67d5daD753A597C53B31c1E73c48c8B17a which can be viewed from:
HERE

The owner wallet has the power to call the functions displayed on the priviliged 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 mint tokens after intial deployment.
- The owner cannot stop Trading.
- The owner cannot change the fees.
- Once the owner renounces ownership of the contract, none of the following are applicable.
- The owner can change the max tx amount with no restrictions.
- The owner can blacklist addresses.
- The owner can swap and send the balance of the contract to the marketing Address.
- The owner can change the max wallet size.
- The owner can add/remove addresses from fees.
- No high-risk Exploits/Vulnerabilities Were Found in token Source Code.

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	3
Total	3

Findings

Uninitialized local variables

ID	Severity	Contract	Function
01	Informational	MonsterToys	function sandwichBot()

Description

Variables i in the for loop.

Recommendation

Initialize all the variables. If a variable is meant to be initialized to zero, explicitly set it to zero to improve code readability.

Missing events arithmetic

ID	Severity	Contract	Function
02	Informational	MonsterToys	Missing events for setMinSwapTokensThreshold, setMaxTxnAmount, setMaxWalletSize

Description

Functions that change critical arithmetic parameters should emit an event.

Recommendation

Emit corresponding events for critical parameter changes.

Too many digits

ID	Severity	Contract	Function
03	Informational	MonsterToys	Variables _tTotal, _maxTxAmount, _maxWalletSize, _swapTokensAtAmount

Description

Literals with many digits are difficult to read and review.

Recommendation

Make use of scientific notation, use underscores, and/or use ether suffix.

Priviliged Functions (onlyOwner)

Function Name	Parameters	Visibility
renounceOwnership	none	public
transferOwnership	address newOwner	public
swapTokensForEth	none	private
manualswap	none	external
manualsend	none	external
withdrawToken	address _tokenContract, uint256 _amount	external
nonSandwichBot	address account	external
sandwichBot	calldata addresses	external
setMinSwapTokensThreshold	uint256 swapTokensAtAmount	public
setMaxTxnAmount	uint256 maxTxAmount	public
setMaxWalletSize	uint256 maxWalletSize	public
excludeMultipleAccountsFromFees	calldata accounts, bool excluded	public

Statistics

Liquidity Info

Parameter	Result
Pair Address	0xD6F448dfcF8813A18247E7467FAE54Ca1fFbd1aB
MONSTER Reserves	0.00 MONSTER
BNB Reserves	0.00 BNB
Liquidity Value	$0 USD

Token (MONSTER) Holders Info

Parameter	Result
MONSTER Percentage Burnt	0.00%
MONSTER Amount Burnt	0 MONSTER
Top 10 Percentage Own	100.00%
Top 10 Amount Owned	1,000,000,000,000,000 MONSTER
Top 10 Aprox Value	$NaN USD

LP (MONSTER/BNB) Holders Info

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

* All the data diplayed above was taken on-chain at block 16738972
* 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 16738972

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