



TechRate
AUDIT COMPANY

Smart Contract Security Audit

Audit Details



Audited project

Micro Santa Coin



Deployer address

0xddaf3a8acae1e0a1568a452879261f84be29166e



Client contacts:

Micro Santa Coin team



Blockchain

Binance Smart Chain



Project website:

Not provided by Micro Santa Coin team

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Background

TechRate was commissioned by Micro Santa Coin to perform an audit of smart contracts:

<https://bscscan.com/address/0x49e558939f6dd099c2bc29bd84b75af82b5ad1b3#code>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Contracts Details

Token contract details for 10.11.2021

Contract name	Micro Santa Coin
Contract address	0x49E558939F6dD099c2BC29BD84b75aF82b5Ad1b3
Total supply	1,000,000,000,000,000
Token ticker	MicroSanta
Decimals	9
Token holders	2
Transactions count	2
Top 100 holders dominance	100.00%
Marketing fee receiver	0xbdfb3d2f22d84db34938b410a3c2707daec04912
Multiplied fee	1400
Autoliquidity receiver	0xddaf3a8acae1e0a1568a452879261f84be29166e
Uniswap V2 pair	0x013450931e9cd184104c611580bb86a4ecb6f24a
Contract deployer address	0xddaf3a8acae1e0a1568a452879261f84be29166e
Contract's current owner address	0xddaf3a8acae1e0a1568a452879261f84be29166e

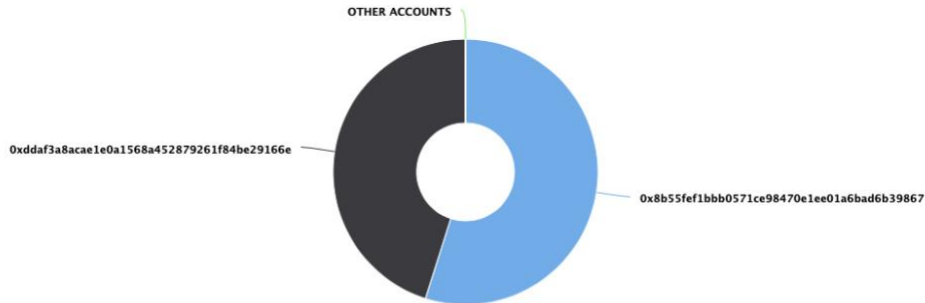
Micro Santa Coin Token Distribution

The top 100 holders collectively own 100.00% (1,000,000,000,000,000.00 Tokens) of Micro Santa Coin

Token Total Supply: 1,000,000,000,000,000.00 Token | Total Token Holders: 2

Micro Santa Coin Top 100 Token Holders

Source: BscScan.com



(A total of 1,000,000,000,000,000.00 tokens held by the top 100 accounts from the total supply of 1,000,000,000,000,000.00 token)

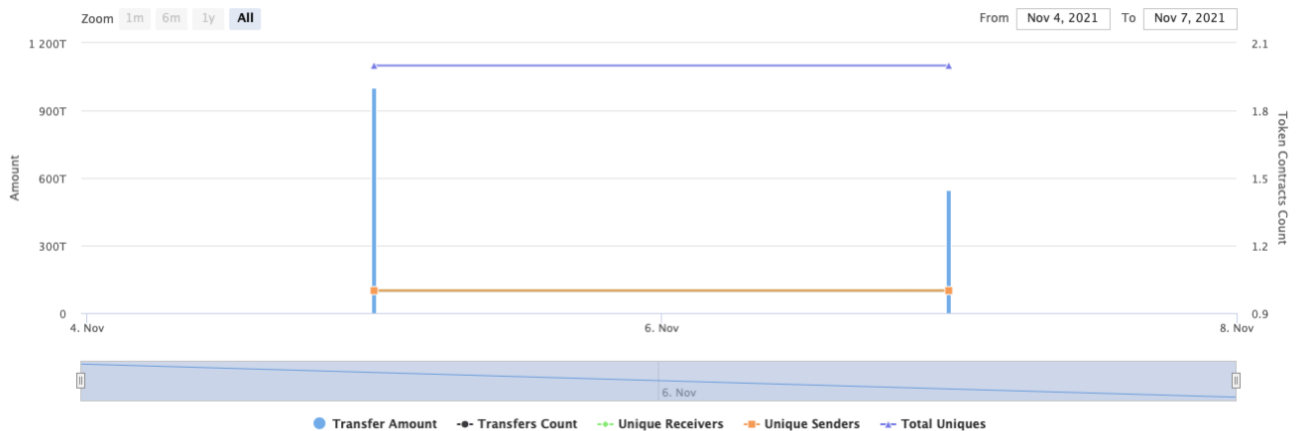
Micro Santa Coin Contract Interaction Details

Time Series: Token Contract Overview


Fri 5, Nov 2021 - Sun 7, Nov 2021

Token Contract 0x49e558939f6dd099c2bc29bd84b75af82b5ad1b3 (Micro Santa Coin)

Source: BscScan.com



Micro Santa Coin Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	 0x8b55fef1bbb0571ce98470e1ee01a6bad6b39867	549,005,000,000,000	54.9005%
2	0xddaf3a8acae1e0a1568a452879261f84be29166e	450,995,000,000,000	45.0995%



Contract functions details

+ [Lib] SafeMath

- [Int] tryAdd
- [Int] trySub
- [Int] tryMul
- [Int] tryDiv
- [Int] tryMod
- [Int] add
- [Int] sub
- [Int] mul
- [Int] div
- [Int] mod
- [Int] sub
- [Int] div
- [Int] mod

+ [Int] IBEP20

- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ Auth

- [Pub] <Constructor> #
- [Pub] authorize #
 - modifiers: onlyOwner
- [Pub] unauthorize #
 - modifiers: onlyOwner
- [Pub] isOwner
- [Pub] isAuthorized
- [Pub] transferOwnership #
 - modifiers: onlyOwner

+ [Int] IDEXFactory

- [Ext] createPair #

+ [Int] IDEXRouter

- [Ext] factory
- [Ext] WETH
- [Ext] addLiquidity #
- [Ext] addLiquidityETH (\$)
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

+ [Int] IDividendDistributor

- [Ext] setDistributionCriteria #
 - [Ext] setShare #
 - [Ext] deposit (\$)
 - [Ext] process #
- + DividendDistributor (IDividendDistributor)
- [Pub] <Constructor> #
 - [Ext] setDistributionCriteria #
 - modifiers: onlyToken
 - [Ext] setShare #
 - modifiers: onlyToken
 - [Ext] deposit (\$)
 - modifiers: onlyToken
 - [Ext] process #
 - modifiers: onlyToken
 - [Int] shouldDistribute
 - [Int] distributeDividend #
 - [Ext] claimDividend #
 - [Pub] getUnpaidEarnings
 - [Int] getCumulativeDividends
 - [Int] addShareholder #
 - [Int] removeShareholder #
- + MicroSantaCoin (IBEP20, Auth)
- [Pub] <Constructor> #
 - modifiers: Auth
 - [Ext] <Fallback> (\$)
 - [Ext] totalSupply
 - [Ext] decimals
 - [Ext] symbol
 - [Ext] name
 - [Ext] getOwner
 - [Pub] balanceOf
 - [Ext] allowance
 - [Pub] approve #
 - [Ext] approveMax #
 - [Ext] transfer #
 - [Ext] transferFrom #
 - [Int] _transferFrom #
 - [Int] _basicTransfer #
 - [Int] checkTxLimit
 - [Int] shouldTakeFee
 - [Pub] getTotalFee
 - [Pub] getMultipliedFee
 - [Int] takeFee #
 - [Int] shouldSwapBack
 - [Int] swapBack #
 - modifiers: swapping
 - [Int] shouldAutoBuyback
 - [Ext] triggerZeusBuyback #
 - modifiers: authorized
 - [Ext] clearBuybackMultiplier #
 - modifiers: authorized
 - [Int] triggerAutoBuyback #
 - [Int] buyTokens #

- modifiers: swapping
- [Ext] setAutoBuybackSettings #
 - modifiers: authorized
- [Ext] setBuybackMultiplierSettings #
 - modifiers: authorized
- [Int] launched
- [Pub] launch #
 - modifiers: authorized
- [Ext] setTxLimit #
 - modifiers: authorized
- [Ext] setLsDividendExempt #
 - modifiers: authorized
- [Ext] setLsFeeExempt #
 - modifiers: authorized
- [Ext] setLsTxLimitExempt #
 - modifiers: authorized
- [Ext] setFees #
 - modifiers: authorized
- [Ext] setFeeReceivers #
 - modifiers: authorized
- [Ext] setSwapBackSettings #
 - modifiers: authorized
- [Ext] setTargetLiquidity #
 - modifiers: authorized
- [Ext] setDistributionCriteria #
 - modifiers: authorized
- [Ext] setDistributorSettings #
 - modifiers: authorized
- [Pub] getCirculatingSupply
- [Pub] getLiquidityBacking
- [Pub] isOverLiquified

(\$) = payable function

= non-constant function

Issues Checking Status

Issue description	Checking status
1. Compiler errors.	Passed
2. Race conditions and Reentrancy. Cross-function race conditions.	Passed
3. Possible delays in data delivery.	Passed
4. Oracle calls.	Passed
5. Front running.	Passed
6. Timestamp dependence.	Passed
7. Integer Overflow and Underflow.	Passed
8. DoS with Revert.	Passed
9. DoS with block gas limit.	Passed
10. Methods execution permissions.	Passed
11. Economy model of the contract.	Passed
12. The impact of the exchange rate on the logic.	Passed
13. Private user data leaks.	Passed
14. Malicious Event log.	Passed
15. Scoping and Declarations.	Passed
16. Uninitialized storage pointers.	Passed
17. Arithmetic accuracy.	Passed
18. Design Logic.	Passed
19. Cross-function race conditions.	Passed
20. Safe Open Zeppelin contracts implementation and usage.	Passed
21. Fallback function security.	Passed

Security Issues

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

No medium severity issues found.

✓ Low Severity Issues

No low severity issues found.

Notes

- No transfer event emitted when basic transfer called.

Owner privileges (In the period when the owner is not renounced)

- Owner can call `triggerZeusBuyback` that's initiate buyback.
- Owner can clear buyback multiplier.
- Owner can change auto buyback settings.
- Owner can change buyback multiplier settings.
- Owner can change the maximum transaction amount.
- Owner can include in and exclude from dividends.
- Owner can include in and exclude from fee and transaction amount.
- Owner can change fees.
- Owner can change fee receivers.
- Owner can change swap threshold and disable/enable swap.
- Owner can change target liquidity values.
- Owner can change distribution criteria.
- Owner can change distribution GAS.

Conclusion

Smart contracts do not contain high severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details NOT provided by the team.

TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.



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