# MOTECH AUDIT

SMART CONTRACT SECURITY AUDIT

## SECURITY ASSESSMENT

**2021**

# CORNUCOPIAS TOKEN AUDIT REPORT

**14 DEC 2021**

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# SUMMARY

This report has been prepared for Cornucopias to discover issues and vulnerabilities in the source code of the Cornucopias project as well as any contract dependencies that were not part of an officially recognized library. A comprehensive examination has been performed, utilizing Static Analysis, Manual Review, and Testnet Deployment techniques.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire codebase by industry experts.

The security assessment resulted in findings that ranged from critical to informational. We recommend addressing these findings to ensure a high level of security standards and industry practices. We suggest recommendations that could better serve the project from the security perspective:

- Enhance general coding practices for better structures of source codes;
- Add enough unit tests to cover the possible use cases given they are currently missing in the repository;
- Provide more comments per each function for readability, especially contracts are verified in public;
- Provide more transparency on privileged activities once the protocol is live.

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# 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.

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.

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# BACKGROUND

MotechAudit was commissioned by Cornucopias to perform an audit of smart contracts:
https://bscscan.com/address/0xfea292e5ea4510881bdb840e3cec63abd43f936f
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.

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# AUDIT DETAILS
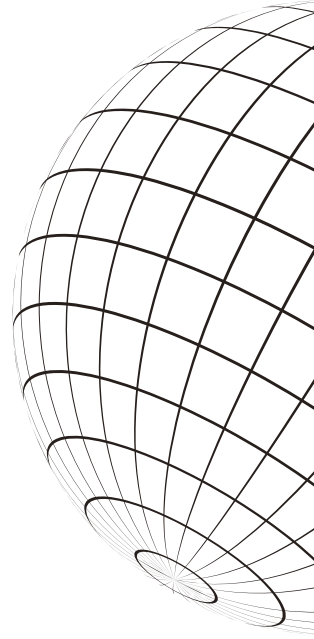
## AUDITED PROJECT

Cornucopias

## DEPLOYER ADDRESS

0x5C80AE9c3396CA4394F9D8E6786Ed9aa74489afE

## CLIENT CONTACTS:

Cornucopias Team
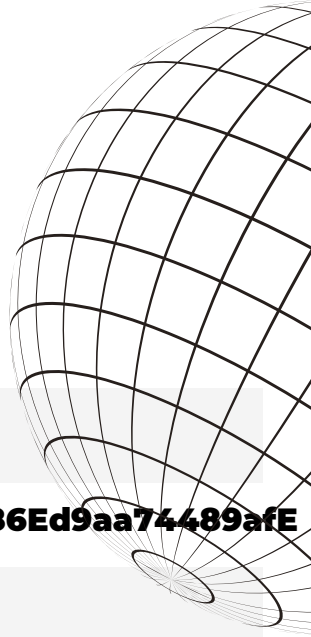
## BLOCKCHAIN

Binance smart chain Project

## WEBSITE:

https://arata.io

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# CONTRACT DETAILS

## Token contract details for Dec-03-2021

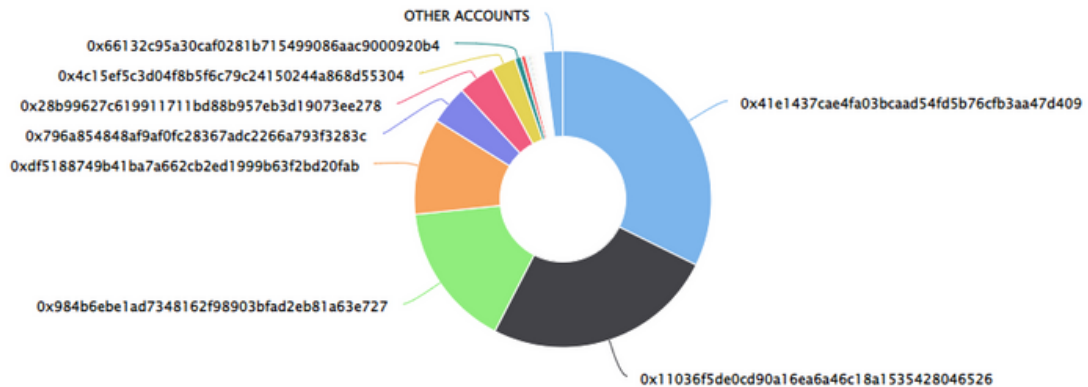| | |
|---|---|
| **Contract name** | **Cornucopias** |
| **Contract address** | **0x5C80AE9c3396CA4394F9D8E6786Ed9aa74489afE** |
| **Total supply** | **3,648,000,020 COPI** |
| **Token ticker** | **Cornucopias [via ChainPort.io] (COPI)** |
| **Decimals** | **18** |
| **Token holders** | **5,109** |
| **Transactions count** | **20,420** |
| **Top 100 holders dominance** | **97.50%** |
| **Contract deployer address** | **0x5C80AE9c3396CA4394F9D8E6786Ed9aa74489afE** |
| **Contract's current owner address** | **0x5C80AE9c3396CA4394F9D8E6786Ed9aa74489afE** |

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# CORNUCOPIAS TOKEN DISTRIBUTION

The top 100 holders collectively own 97.89% (3,571,003,791.16 Tokens) of Cornucopias [via ChainPort.io]

Token Total Supply: 3,648,000,020.00 Token  |  Total Token Holders: 5,107

## Cornucopias [via ChainPort.io] Top 100 Token Holders

Source: BscScan.com

OTHER ACCOUNTS

0x66132c95a30caf0281b715499086aac9000920b4
0x4c15ef5c3d04f8b5f6c79c24150244a868d55304
0x28b99627c619911711bd88b957eb3d19073ee278
0x796a854848af9af0fc28367adc2266a793f3283c
0xdf5188749b41ba7a662cb2ed1999b63f2bd20fab

0x41e1437cae4fa03bcaad54fd5b76cfb3aa47d409

0x984b6ebe1ad7348162f98903bfad2eb81a63e727

0x11036f5de0cd90a16ea6a46c18a1535428046526

(A total of 3,571,003,791.16 tokens held by the top 100 accounts from the total supply of 3,648,000,020.00 token)

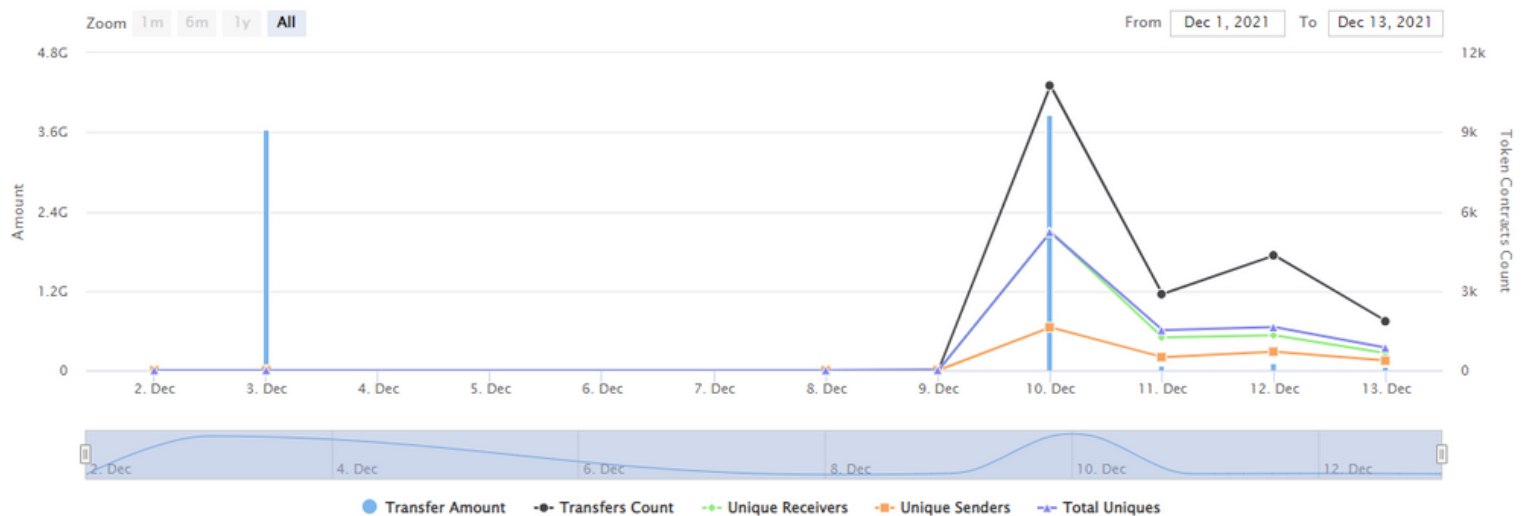# CORNUCOPIAS TOKEN CONTRACT INTERACTION DETAILS

Time Series: Token Contract Overview

Thu 2, Dec 2021 - Mon 13, Dec 2021

Token Contract 0xfea292e5ea4510881bdb840e3cec63abd43f936f (Cornucopias [via ChainPort.io])
Source: BscScan.com

Zoom  1m  6m  1y  All

From Dec 1, 2021  To Dec 13, 2021

Amount

4.8G

3.6G

2.4G

1.2G

0

2. Dec   3. Dec   4. Dec   5. Dec   6. Dec   7. Dec   8. Dec   9. Dec   10. Dec   11. Dec   12. Dec   13. Dec

Token Contracts Count

12k

9k

6k

3k

0

2. Dec   4. Dec   6. Dec   8. Dec   10. Dec   12. Dec

● Transfer Amount   ● Transfers Count   ● Unique Receivers   ● Unique Senders   ● Total Uniques

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# TOP 10 TOKEN HOLDERS

| Rank | Address | Quantity | Percentage | Analytics |
|---|---|---|---|---|
| 1 | 0x41e1437cae4fa03bcaad54fd5b76cfb3aa47d409 | 1,178,880,000 | 32.3158% | 📈 |
| 2 | 0x11036f5de0cd90a16ea6a46c18a1535428046526 | 921,600,000 | 25.2632% | 📈 |
| 3 | 0x984b6ebe1ad7348162f98903bfad2eb81a63e727 | 576,000,000 | 15.7895% | 📈 |
| 4 | 0xdf5188749b41ba7a662cb2ed1999b63f2bd20fab | 384,000,000 | 10.5263% | 📈 |
| 5 | 0x796a854848af9af0fc28367adc2266a793f3283c | 153,600,000 | 4.2105% | 📈 |
| 6 | 0x28b99627c619911711bd88b957eb3d19073ee278 | 146,037,817.66 | 4.0032% | 📈 |
| 7 | 0x4c15ef5c3d04f8b5f6c79c24150244a868d55304 | 96,632,740 | 2.6489% | 📈 |
| 8 | 0x66132c95a30caf0281b715499086aac9000920b4 | 25,684,931 | 0.7041% | 📈 |
| 9 | PancakeSwap V2: COPI 5 | 17,608,684.308156236555000937 | 0.4827% | 📈 |
| 10 | 0x171ec20938b3d0fda72724cfd79610f904fd010f | 7,624,525.993554148061 | 0.2090% | 📈 |

source:https://bscscan.com/

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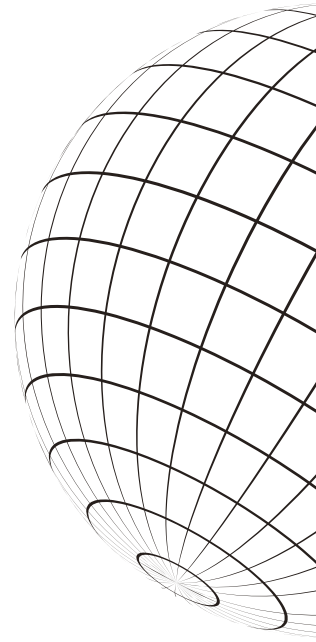SMART CONTRACT SECURITY AUDIT

# SECURITY ISSUES

**Critical Severity Issues**

No high severity issues found.

**High Severity Issues**

No high severity issues found.

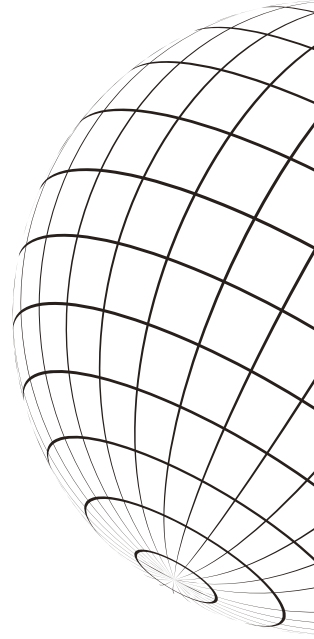**Medium Severity Issues**

No high severity issues found.

**Low Severity Issues**

No high severity issues found.
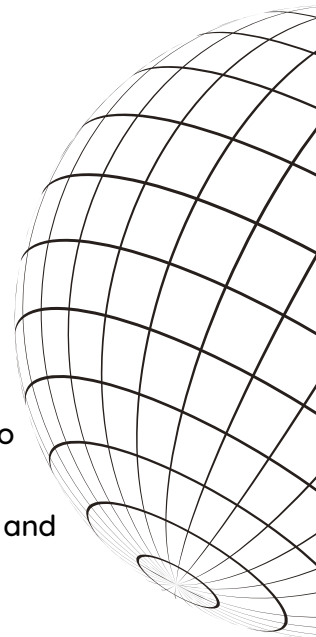
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Smart contracts contain owner privileges!

Motech Audit 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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