



# SECURITY ASSESSMENT CheesyPad Token

December 20, 2023

Audit Status: Pass












# RISK ANALYSIS | CheesyPad.

## Classifications of Manual Risk Results

| Classification  | Description                      |
|---|----------------------------------|
|  Critical      | Danger or Potential Problems.    |
|  High          | Be Careful or Fail test.         |
|  Medium        | Improve is needed.               |
|  Low           | Pass, Not-Detected or Safe Item. |
|  Informational | Function Detected                |

## Manual Code Review Risk Results

| Contract Security  | Description  |
|--|--------------|
|  Buy Tax          | 4%           |
|  Sale Tax         | 4%           |
|  Cannot Buy       | Pass         |
|  Cannot Sale      | Pass         |
|  Max Tax          | 4%           |
|  Modify Tax       | No           |
|  Fee Check        | Pass         |
|  Is Honeygot?     | Not Detected |
|  Trading Cooldown | Not Detected |

| Contract Security     | Description                                |
|-----------------------|--|
| ● Enable Trade?       | Fail                                       |
| ● Pause Transfer?     | Not Detected                               |
| ● Max Tx?             | Pass                                       |
| ● Is Anti Whale?      | Not Detected                               |
| ● Is Anti Bot?        | Not-Detected                               |
| ● Is Blacklist?       | Not Detected                               |
| ● Blacklist Check     | Pass                                       |
| ● is Whitelist?       | Not-Detected                               |
| ● Can Mint?           | Pass                                       |
| ● Is Proxy?           | Not Detected                               |
| ● Can Take Ownership? | Not Detected                               |
| ● Hidden Owner?       | Not Detected                               |
| ● Owner               | 0x442388CF9efb39F2b9C7307C9d9F7BceB6C492b9 |
| ● Self Destruct?      | Not Detected                               |
| ● External Call?      | Not Detected                               |
| ● Other?              | Not Detected                               |
| ● Holders             | 4  |
| ● Audit Confidence    | High                                       |

The summary section reveals the strengths and weaknesses identified during the assessment, including any vulnerabilities or potential risks that may exist. It serves as a valuable snapshot of the overall security status of the audited project. However, it is highly recommended to read the entire security assessment report for a comprehensive understanding of the findings. The full report provides detailed insights into the assessment process, methodology, and specific recommendations for addressing the identified issues.



## CheesyPad

### Executive Summary

#### TYPES

DeFi

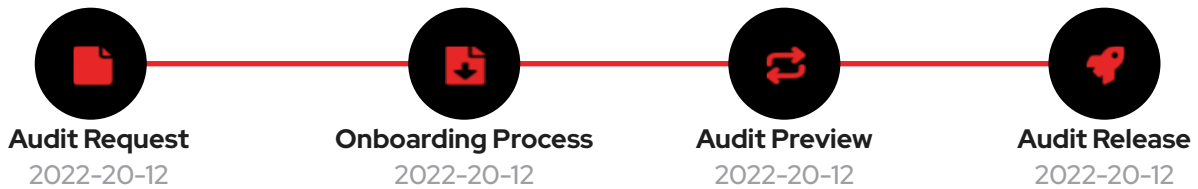
#### ECOSYSTEM

ETHEREUM

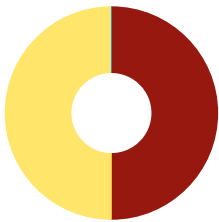
#### LANGUAGE

Solidity

### Timeline



### Vulnerability Summary



2

Total Findings

0

Resolved

2

Pending

2

Unresolved

#### 1 Critical

0 Resolved, 1 Pending

Critical risks are the most severe and can have a significant impact on the smart contracts functionality, security, or the entire system. These vulnerabilities can lead to the loss of user funds, unauthorized access, or complete system compromise.

#### 0 High

High-risk vulnerabilities have the potential to cause significant harm to the smart contract or the system. While not as severe as critical risks, they can still result in financial losses, data breaches, or denial of service attacks.

#### 0 Medium

Medium-risk vulnerabilities pose a moderate level of risk to the smart contracts security and functionality. They may not have an immediate and severe impact but can still lead to potential issues if exploited. These risks should be addressed to ensure the contracts overall security.

#### 1 Low

0 Resolved, 1 Pending

Low-risk vulnerabilities have a minimal impact on the smart contracts security and functionality. They may not pose a significant threat, but it is still advisable to address them to maintain a robust security posture.

#### 0 Informational

Informational risks are not actual vulnerabilities but provide useful information about potential improvements or best practices. These findings may include suggestions for code optimizations, documentation enhancements, or other non-critical areas for improvement.

# PROJECT OVERVIEW | CheesyPad.

## Token Summary

| Parameter     | Result  |
|---------------|---|
| Address       | 0x77bA4249C73176b7A88945679d8CC375C26dBd72  |
| Name          | CheesyPad   |
| Token Tracker | CheesyPad (\$CHEESY)  |
| Decimals      | 18  |
| Supply        | 14,400,000  |
| Platform      | ETHEREUM  |
| compiler      | v0.8.19+commit.7dd6d404   |
| Contract Name | CheesyPad   |
| Optimization  | Yes with 200 runs   |
| LicenseType   | MIT   |
| Language      | Solidity  |
| Codebase      | <a href="https://etherscan.io/address/0x77ba4249c73176b7a88945679d8cc375c26dbd72#code">https://etherscan.io/address/0x77ba4249c73176b7a88945679d8cc375c26dbd72#code</a> |

## ■ Main Contract Assessed

| Name      | Contract                                   | Live |
|-----------|--|------|
| CheesyPad | 0x77bA4249C73176b7A88945679d8CC375C26dBd72 | Yes  |

## ■ TestNet Contract Assessed

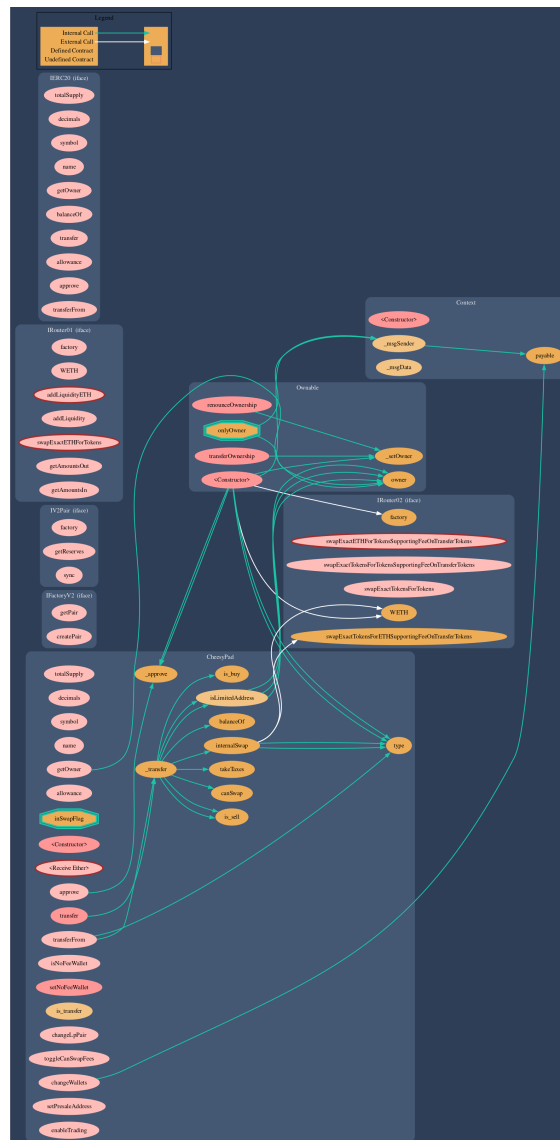
| Name      | Contract                                  | Live |
|-----------|---|------|
| CheesyPad | 0x980f46CC42b1fAc95Ac6C90Ea747DB824aeF639 | Yes  |

## ■ Solidity Code Provided

| SoIID     | File Sha-1                               | FileName      |
|-----------|--|---------------|
| CheesyPad | a726ba644d527e95d1572cd90b04b845fb7d888b | CheesyPad.sol |

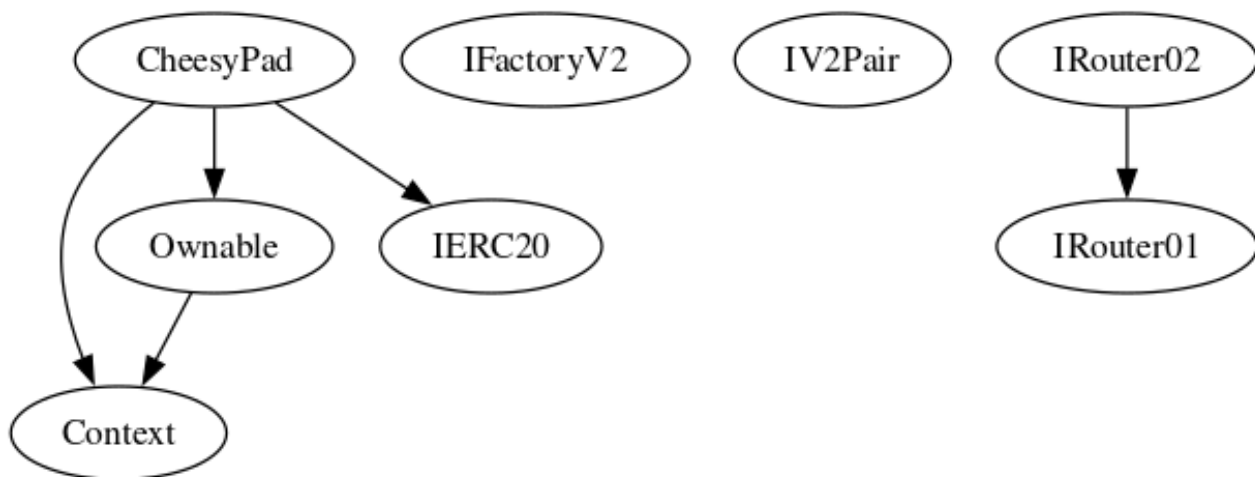
## Call Graph

The Smart Contract Graph is a visual representation of the interconnectedness and relationships between smart contracts within a blockchain network. It provides a comprehensive view of the interactions and dependencies between different smart contracts, allowing developers and users to analyze and understand the flow of data and transactions within the network. The Smart Contract Graph enables better transparency, security, and efficiency in decentralized applications by facilitating the identification of potential vulnerabilities, optimizing contract execution, and enhancing overall network performance.



## Inheritance Check

Smart contract inheritance is a concept in blockchain programming where one smart contract can inherit properties and functionalities from another existing smart contract. This allows for code reuse and modularity, making the development process more efficient and scalable. Inheritance enables the child contract to access and utilize the variables, functions, and modifiers defined in the parent contract, thereby inheriting its behavior and characteristics. This feature is particularly useful in complex decentralized applications (dApps) where multiple contracts need to interact and share common functionalities. By leveraging smart contract inheritance, developers can create more organized and maintainable code structures, promoting code reusability and reducing redundancy.





## Smart Contract Vulnerability Checks

The Smart Contract Weakness Classification Registry (SWC Registry) is an implementation of the weakness classification scheme proposed in EIP-1470. It is loosely aligned to the terminologies and structure used in the Common Weakness Enumeration (CWE) while overlaying a wide range of weakness variants that are specific to smart contracts.

| ID      | Severity | Name   | File          | location  |
|---------|----------|--|---------------|-----------|
| SWC-100 | Pass     | Function Default Visibility  | CheesyPad.sol | L: 0 C: 0 |
| SWC-101 | Pass     | Integer Overflow and Underflow.  | CheesyPad.sol | L: 0 C: 0 |
| SWC-102 | Pass     | Outdated Compiler Version file.  | CheesyPad.sol | L: 0 C: 0 |
| SWC-103 | Pass     | A floating pragma is set.  | CheesyPad.sol | L: 0 C: 0 |
| SWC-104 | Pass     | Unchecked Call Return Value.   | CheesyPad.sol | L: 0 C: 0 |
| SWC-105 | Pass     | Unprotected Ether Withdrawal.  | CheesyPad.sol | L: 0 C: 0 |
| SWC-106 | Pass     | Unprotected SELFDESTRUCT Instruction   | CheesyPad.sol | L: 0 C: 0 |
| SWC-107 | Pass     | Read of persistent state following external call.                                  | CheesyPad.sol | L: 0 C: 0 |
| SWC-108 | Pass     | State variable visibility is not set..   | CheesyPad.sol | L: 0 C: 0 |
| SWC-109 | Pass     | Uninitialized Storage Pointer.   | CheesyPad.sol | L: 0 C: 0 |
| SWC-110 | Pass     | Assert Violation.  | CheesyPad.sol | L: 0 C: 0 |
| SWC-111 | Pass     | Use of Deprecated Solidity Functions.  | CheesyPad.sol | L: 0 C: 0 |
| SWC-112 | Pass     | Delegate Call to Untrusted Callee.   | CheesyPad.sol | L: 0 C: 0 |
| SWC-113 | Pass     | Multiple calls are executed in the same transaction.                               | CheesyPad.sol | L: 0 C: 0 |
| SWC-114 | Pass     | Transaction Order Dependence.  | CheesyPad.sol | L: 0 C: 0 |
| SWC-115 | Pass     | Authorization through tx.origin.   | CheesyPad.sol | L: 0 C: 0 |
| SWC-116 | Pass     | A control flow decision is made based on The block.timestamp environment variable. | CheesyPad.sol | L: 0 C: 0 |
| SWC-117 | Pass     | Signature Malleability.  | CheesyPad.sol | L: 0 C: 0 |
| SWC-118 | Pass     | Incorrect Constructor Name.  | CheesyPad.sol | L: 0 C: 0 |

| ID      | Severity | Name   | File          | location                      |
|---------|----------|--|---------------|-------------------------------|
| SWC-119 | Pass     | Shadowing State Variables.                               | CheesyPad.sol | L: 0 C: 0                     |
| SWC-120 | Low      | Potential use of block.number as source of randomness.   | CheesyPad.sol | L: 313 C: 74,<br>L: 394 C: 24 |
| SWC-121 | Pass     | Missing Protection against Signature Replay Attacks.     | CheesyPad.sol | L: 0 C: 0                     |
| SWC-122 | Pass     | Lack of Proper Signature Verification.                   | CheesyPad.sol | L: 0 C: 0                     |
| SWC-123 | Pass     | Requirement Violation.                                   | CheesyPad.sol | L: 0 C: 0                     |
| SWC-124 | Pass     | Write to Arbitrary Storage Location.                     | CheesyPad.sol | L: 0 C: 0                     |
| SWC-125 | Pass     | Incorrect Inheritance Order.                             | CheesyPad.sol | L: 0 C: 0                     |
| SWC-126 | Pass     | Insufficient Gas Griefing.                               | CheesyPad.sol | L: 0 C: 0                     |
| SWC-127 | Pass     | Arbitrary Jump with Function Type Variable.              | CheesyPad.sol | L: 0 C: 0                     |
| SWC-128 | Pass     | DoS With Block Gas Limit.                                | CheesyPad.sol | L: 0 C: 0                     |
| SWC-129 | Pass     | Typographical Error.                                     | CheesyPad.sol | L: 0 C: 0                     |
| SWC-130 | Pass     | Right-To-Left-Override control character (U+202E).       | CheesyPad.sol | L: 0 C: 0                     |
| SWC-131 | Pass     | Presence of unused variables.                            | CheesyPad.sol | L: 0 C: 0                     |
| SWC-132 | Pass     | Unexpected Ether balance.                                | CheesyPad.sol | L: 0 C: 0                     |
| SWC-133 | Pass     | Hash Collisions with Multiple Variable Length Arguments. | CheesyPad.sol | L: 0 C: 0                     |
| SWC-134 | Pass     | Message call with hardcoded gas amount.                  | CheesyPad.sol | L: 0 C: 0                     |
| SWC-135 | Pass     | Code With No Effects (Irrelevant/ Dead Code).            | CheesyPad.sol | L: 0 C: 0                     |
| SWC-136 | Pass     | Unencrypted Private Data On-Chain.                       | CheesyPad.sol | L: 0 C: 0                     |

We scan the contract for additional security issues using MYTHX and industry-standard security scanning tools.

## Smart Contract Vulnerability Details | SWC-120 - Weak Sources of Randomness from Chain Attributes.

### CWE-330: Use of Insufficiently Random Values

#### Description:

Solidity allows for ambiguous naming of state variables when inheritance is used. Contract A with a variable x could inherit contract B that also has a state variable x defined. This would result in two separate versions of x, one of them being accessed from contract A and the other one from contract B. In more complex contract systems this condition could go unnoticed and subsequently lead to security issues.

Shadowing state variables can also occur within a single contract when there are multiple definitions on the contract and function level.

#### Remediation:

Using commitment scheme, e.g. RANDAO. Using external sources of randomness via oracles, e.g. Oraclize. Note that this approach requires trusting in oracle, thus it may be reasonable to use multiple oracles. Using Bitcoin block hashes, as they are more expensive to mine.

#### References:

How can I securely generate a random number in my smart contract?)






When can BLOCKHASH be safely used for a random number? When would it be unsafe?

The Run smart contract.

## TECHNICAL FINDINGS | CheesyPad.



Smart contract security audits classify risks into several categories: Critical, High, Medium, Low, and Informational. These classifications help assess the severity and potential impact of vulnerabilities found in smart contracts.

### Classification of Risk

| Severity  | Description  |
|---|--|
|  Critical        | Critical risks are the most severe and can have a significant impact on the smart contracts functionality, security, or the entire system. These vulnerabilities can lead to the loss of user funds, unauthorized access, or complete system compromise.                                     |
|  High            | High-risk vulnerabilities have the potential to cause significant harm to the smart contract or the system. While not as severe as critical risks, they can still result in financial losses, data breaches, or denial of service attacks.   |
|  Medium        | Medium-risk vulnerabilities pose a moderate level of risk to the smart contracts security and functionality. They may not have an immediate and severe impact but can still lead to potential issues if exploited. These risks should be addressed to ensure the contracts overall security. |
|  Low           | Low-risk vulnerabilities have a minimal impact on the smart contracts security and functionality. They may not pose a significant threat, but it is still advisable to address them to maintain a robust security posture.   |
|  Informational | Informational risks are not actual vulnerabilities but provide useful information about potential improvements or best practices. These findings may include suggestions for code optimizations, documentation enhancements, or other non-critical areas for improvement.                    |

By categorizing risks into these classifications, smart contract security audits can prioritize the resolution of critical and high-risk vulnerabilities to ensure the contract's overall security and protect user funds and data.

## \$CHEESY-05 | Missing Event Emission.

| Category      | Severity  | Location                    | Status   |
|---------------|---|-----------------------------|--|
| Volatile Code |  Low | CheesyPad.sol: L: 333 C: 14 |  Detected |

### Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes. The linked code does not create an event for the transfer.

### Recommendation



Emit an event for critical parameter changes. It is recommended emitting events for the sensitive functions that are controlled by centralization roles.

### Mitigation

### References:

Understanding Events in Smart Contracts

## I \$CHEESY-18 | Stop Transactions by using Enable Trade.

| Category      | Severity   | Location                    | Status   |
|---------------|--|-----------------------------|--|
| Logical Issue |  Critical | CheesyPad.sol: L: 408 C: 14 |  Detected |

### Description

Enable Trade is present on the following contract and when combined with Exclude from fees it can be considered a whitelist process, this will allow anyone to trade before others and can represent and issue for the holders.

### Recommendation

We recommend the project owner to carefully review this function and avoid problems when performing both actions.

### Mitigation

### References:

Writing Clean Code for Solidity: Best Practices for Solidity Development

## FINDINGS

In this document, we present the findings and results of the smart contract security audit. The identified vulnerabilities, weaknesses, and potential risks are outlined, along with recommendations for mitigating these issues. It is crucial for the team to address these findings promptly to enhance the security and trustworthiness of the smart contract code.

| Severity                     | Found | Pending | Resolved |
|------------------------------|-------|---------|----------|
| <span>●</span> Critical      | 1     | 1       | 0        |
| <span>●</span> High          | 0     | 0       | 0        |
| <span>●</span> Medium        | 0     | 0       | 0        |
| <span>●</span> Low           | 1     | 1       | 0        |
| <span>i</span> Informational | 0     | 0       | 0        |
| Total                        | 2     | 2       | 0        |

In a smart contract, a technical finding summary refers to a compilation of identified issues or vulnerabilities discovered during a security audit. These findings can range from coding errors and logical flaws to potential security risks. It is crucial for the project owner to thoroughly review each identified item and take necessary actions to resolve them. By carefully examining the technical finding summary, the project owner can gain insights into the weaknesses or potential threats present in the smart contract. They should prioritize addressing these issues promptly to mitigate any risks associated with the contract's security. Neglecting to address any identified item in the security audit can expose the smart contract to significant risks. Unresolved vulnerabilities can be exploited by malicious actors, potentially leading to financial losses, data breaches, or other detrimental consequences. To ensure the integrity and security of the smart contract, the project owner should engage in a comprehensive review process. This involves understanding the nature and severity of each identified item, consulting with experts if needed, and implementing appropriate fixes or enhancements. Regularly updating and maintaining the smart contract's codebase is also essential to address any emerging security concerns. By diligently reviewing and resolving all identified items in the technical finding summary, the project owner can significantly reduce the risks associated with the smart contract and enhance its overall security posture.

## SOCIAL MEDIA CHECKS | CheesyPad.

| Social Media | URL   | Result |
|--------------|---|--------|
| Website      | <a href="https://www.cheesypad.com/">https://www.cheesypad.com/</a>   | Pass   |
| Telegram     | <a href="https://t.me/CHEESYPAD">https://t.me/CHEESYPAD</a>   | Pass   |
| Twitter      | <a href="https://twitter.com/cheesylaunchpad">https://twitter.com/cheesylaunchpad</a>   | Pass   |
| Facebook     |   | N/A    |
| Reddit       | N/A   | N/A    |
| Instagram    |   | N/A    |
| CoinGecko    | N/A   | N/A    |
| Github       |   | N/A    |
| CMC          | N/A   | N/A    |
| Other        | <a href="https://cheesepads.gitbook.io/cheesepad/main/cheesypad-introduction">https://cheesepads.gitbook.io/cheesepad/main/cheesypad-introduction</a> | Pass   |

From a security assessment standpoint, inspecting a project's social media presence is essential. It enables the evaluation of the project's reputation, credibility, and trustworthiness within the community. By analyzing the content shared, engagement levels, and the response to any security-related incidents, one can assess the project's commitment to security practices and its ability to handle potential threats.

### Social Media Information Notes:

**Auditor Notes:** Website need improvements.

**Project Owner Notes:**



# ASSESSMENT RESULTS | CheesyPad.

## Score Results

| Review        | Score  |
|---------------|--------|
| Overall Score | 93/100 |
| Auditor Score | 87/100 |

| Review by Section   | Score |
|---------------------|-------|
| Manual Scan Score   | 36    |
| SWC Scan Score      | 35    |
| Advance Check Score | 22    |

Our security assessment or audit score system for the smart contract and project follows a comprehensive evaluation process to ensure the highest level of security. The system assigns a score based on various security parameters and benchmarks, with a passing score set at 80 out of a total attainable score of 100. The assessment process includes a thorough review of the smart contracts codebase, architecture, and design principles. It examines potential vulnerabilities, such as code bugs, logical flaws, and potential attack vectors. The evaluation also considers the adherence to best practices and industry standards for secure coding. Additionally, the system assesses the projects overall security measures, including infrastructure security, data protection, and access controls. It evaluates the implementation of encryption, authentication mechanisms, and secure communication protocols. To achieve a passing score, the smart contract and project must attain a minimum of 80 points out of the total attainable score of 100. This ensures that the system has undergone a rigorous security assessment and meets the required standards for secure operation.



## Important Notes for \$CHEESY

- No issues or vulnerabilities were found.■
- Contract has been developed by Freddy and follow the coding best practices, we have fully tested the code and its functionalities.

**Auditor Score =87**  
**Audit Passed**



## Appendix

### Finding Categories

#### Centralization / Privilege

Centralization / Privilege findings refer to either feature logic or implementation of components that act against the nature of decentralization, such as explicit ownership or specialized access roles in combination with a mechanism to relocate funds.

#### Gas Optimization

Gas Optimization findings do not affect the functionality of the code but generate different, more optimal EVM opcodes resulting in a reduction on the total gas cost of a transaction.

#### Logical Issue

Logical Issue findings detail a fault in the logic of the linked code, such as an incorrect notion on how block.timestamp works.

#### Control Flow

Control Flow findings concern the access control imposed on functions, such as owner-only functions being invoke-able by anyone under certain circumstances.

#### Volatile Code

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that may result in a vulnerability.

#### Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to make the codebase more legible and, as a result, easily maintainable.

#### Inconsistency

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code, such as a constructor assignment imposing different requirements on the input variables than a setter function.

#### Coding Best Practices

ERC 20 Coding Standards are a set of rules that each developer should follow to ensure the code meets a set of criteria and is readable by all the developers.

## Disclaimer

The purpose of this disclaimer is to outline the responsibilities and limitations of the security assessment and smart contract audit conducted by BladePool/CFG NINJA. By engaging our services, the project owner acknowledges and agrees to the following terms:

1. Limitation of Liability: BladePool/CFG NINJA shall not be held liable for any damages, losses, or expenses incurred as a result of any contract malfunctions, vulnerabilities, or exploits discovered during the security assessment and smart contract audit. The project owner assumes full responsibility for any consequences arising from the use or implementation of the audited smart contract. 2. No Guarantee of Absolute Security: While BladePool/CFG NINJA employs industry-standard practices and methodologies to identify potential security risks, it is important to note that no security assessment or smart contract audit can provide an absolute guarantee of security. The project owner acknowledges that there may still be unknown vulnerabilities or risks that are beyond the scope of our assessment. 3. Transfer of Responsibility: By engaging our services, the project owner agrees to assume full responsibility for addressing and mitigating any identified vulnerabilities or risks discovered during the security assessment and smart contract audit. It is the project owner's sole responsibility to ensure the proper implementation of necessary security measures and to address any identified issues promptly. 4. Compliance with Applicable Laws and Regulations: The project owner acknowledges and agrees to comply with all applicable laws, regulations, and industry standards related to the use and implementation of smart contracts. BladePool/CFG NINJA shall not be held responsible for any non-compliance by the project owner. 5. Third-Party Services: The security assessment and smart contract audit conducted by BladePool/CFG NINJA may involve the use of third-party tools, services, or technologies. While we exercise due diligence in selecting and utilizing these resources, we cannot be held liable for any issues or damages arising from the use of such third-party services. 6. Confidentiality: BladePool/CFG NINJA maintains strict confidentiality regarding all information and data obtained during the security assessment and smart contract audit. However, we cannot guarantee the security of data transmitted over the internet or through any other means. 7. Not a Financial Advice: BladePool/CFG NINJA please note that the information provided in the security assessment or audit should not be considered as financial advice. It is always recommended to consult with a financial professional or do thorough research before making any investment decisions.

By engaging our services, the project owner acknowledges and accepts these terms and releases BladePool/CFG NINJA from any liability, claims, or damages arising from the security assessment and smart contract audit. It is recommended that the project owner consult legal counsel before entering into any agreement or contract.

