

# SECURITY ASSESSMENT APERIL TOKEN

March 30, 2024

**Audit Status: Pass** 







# RISK ANALYSIS | APERIL.

#### ■ 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.
1 Informational	Function Detected

#### ■ Manual Code Review Risk Results

Manual Code Review Risk Results			
Contract Security	Description		
Buy Tax	0%		
Sale Tax	0%		
Cannot Buy	Pass		
Cannot Sale	Pass		
Max Tax	0%		
Modify Tax	No		
Fee Check	Pass		
Is Honeypot?	Not Detected		
Trading Cooldown	Not Detected		
Enable Trade?	True		
Pause Transfer?	Not Detected		

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Contract Security	Description
Max Tx?	Pass
Is Anti Whale?	Not Detected
Is Anti Bot?	Not Detected
Is Blacklist?	Not Detected
Blacklist Check	Pass
is Whitelist?	Pass
Can Mint?	Pass
Is Proxy?	Not Detected
Can Take Ownership?	Not Detected
Hidden Owner?	Not Detected
1 Owner	BPFLoader2111111111111111111111111111111111111
Self Destruct?	Not Detected
External Call?	Not Detected
Other?	Not Detected
Holders	1
Audit Confidence	Low
Authority Check	Pass
Freeze Check	Pass

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.

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### CFG Ninja Verified on March 30, 2024

### **APERIL**



## **Executive Summary**

TYPES ECOSYSTEM LANGUAGE

DeFi SOLSCAN RUST

### Timeline



## **Vulnerability Summary**

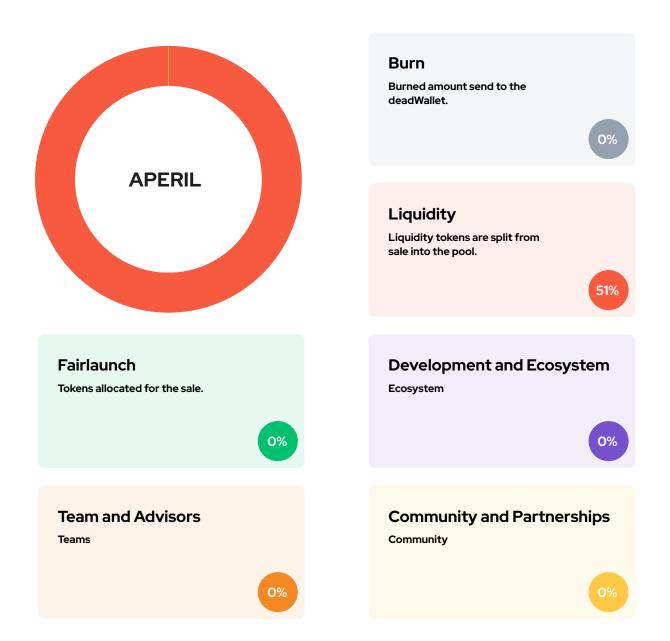


O Critical	Critical risks are the most severe and can have a significant impact on the smart contracts functionality, security, or the entire system. These vulnerabilities can lead to the loss of user funds, unauthorized access, or complete system compromise.
O High	High-risk vulnerabilities have the 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.
O 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.
O 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.
1 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.

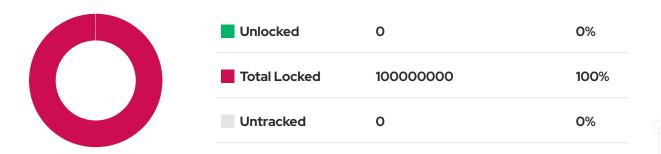
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### **Token Distribution**



# **Total Unlock Progress**



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# PROJECT OVERVIEW APERIL.

# I Token Summary

Parameter	Result
Address	2YYXY92QeLMPVdQnRX3hNhGBFuHXHLg2LWwgiZMVeKdg
Name	APERIL
Token Tracker	APERIL (APERIL)
Decimals	6
Supply	100,000,000.00
Platform	SOLSCAN
Compiler	v0.8.18+commit.87f61d96
Contract Name	APERIL
Optimization	Yes with 200 runs
LicenseType	Unlicensed
Language	RUST
Codebase	https://solscan.io/ token/2YYXY92QeLMPVdQnRX3hNhGBFuHXHLg2LWwgiZMVeKdg#metadata

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### Advance Verification

Parameter	Result
Transfer From Owner	Pass
Transfer From Holder	Pass
Add Liquidity	Pass
RemoveLiquidity	Pass
Buy from Owner	Pass
Buy from Holder	Pass
Sale from Owner	Pass
Sale from Holder	Pass
SwapAndLiquify	Pass
LaunchPad	PinkSale

The following is a simulation of the contract in our local testnet or using one of the public testnet environments, this is to ensure the contract operations are fully functional and that are able to pass the specific launchpad criterias. While this section may be a pass, please understand you need to review all other details of the project. Always DYOR.

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## Main Contract Assessed

Name	Contract	Live
APERIL	2YYXY92QeLMPVdQnRX3hNhGBFuHXHLg2LWwgiZMVeKdg	No

# I TestNet Contract Was Not Assessed

# Solidity Code Provided

SoliD	File Sha-1	FileName
Baby DON	N/A	BabyDON.sol
Baby DON		

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# PROJECT OVERVIEW APERIL.

# ■ Token Summary - Solana

Parameter	Result
Address	2YYXY92QeLMPVdQnRX3hNhGBFuHXHLg2LWwgiZMVeKdg
Name	APERIL
Token Tracker	APERIL (APERIL)
Decimals	6
Supply	100,000,000.00
Platform	SOLSCAN
Program	TokenkegQfeZyiNwAJbNbGKPFXCWuBvf9Ss623VQ5DA
Creator Name	Bladepool
Creation Site	https://cfg.ninja
Language	RUST
Image	https://arweave.net/UyeRGxDT4tvCVEOualzZ1tb7XI-WHm9n64SPOSOGiYk
Metadata File Type	JSON
Solana Source	https://solscan.io/ token/8NCWjCWSmes6WB4fxDrLAQLg54NWptQWSXbW6HeU8rv#metadata

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# PROJECT OVERVIEW APERIL.

### Metaplex Metadata (on-chain data)

Solana metadata refers to the additional information associated with a digital asset or NFT (Non-Fungible Token) on the Solana blockchain. It includes details such as the name, description, image, attributes, and other relevant data about the asset.

In the context of Solana, metadata is typically stored in a JSON format and is linked to the asset's unique identifier or token ID. This metadata provides important information about the asset, allowing users and applications to understand and interact with it.

Solana metadata can be used for various purposes, including displaying asset information in marketplaces, creating rich visual representations of NFTs, and enabling advanced functionalities like royalties, provenance tracking, and interoperability across different platforms.

It's worth noting that the specific structure and content of Solana metadata can vary depending on the project or application that utilizes the Solana blockchain.

```
Wetaplex Metadata (on-chain data)

\[
\begin{align*}
\text{"root": {\ 8 items} \\
\text{"key": int 4} \\
\text{"updateAuthority": string "EZSjyA5cy4ymQep8rMAKJXP3F6iq$mShbdL9w1NVHmLd"} \\
\text{"mint": string "Cb85u66JqUThurhWnm5pkhmw3Y58zobu5Mf3CbAnq8RV"} \\
\text{"data": {\ 4 items} \\
\text{"name": string "HOOLK"} \\
\text{"symbol": string "HOOLK"} \\
\text{"uril": string "https://arweave.net/slFcaLS4J2vxEeeDMwXLXrf5OLtWNJ_8l29xE6i9VI4"} \\
\text{"sellerFeeBasisPoints": int 0} \\
\text{}
\text{"isMutable": int 1} \\
\text{"editionNonce": int 255} \\
\text{"tokenStandard": int 2}
\end{align*}
```

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# | APERIL | Metadata Results.

Parameter	Value	Description
key	4	This is an integer value (int4) that represents the key associated with the root object.
updateAuthority	-	g This is a string value that represents the update qauthority for the program.
mint	2YYXY92QeLMPVdQnRX 3hNhGBFuHXHLg2LWwg ZMVeKdg	This is a string value that represents the mint address if or the program.
name	APERIL	This is a string value that represents the name of the token.
symbol	APERIL	This is a string value that represents the symbol of the token.
uri		n This is a string value that represents the URI (Uniform 7 Resource Identifier) of the token. f
sellerFeeBasisPoints	0	This is an integer value (int0) that represents the seller fee basis points for the token
primarySaleHappened	0	This is an integer value (int0) that indicates whether the primary sale of the token has happened.
isMutable	0	This is an integer value (int1) that indicates whether the token is mutable. The specific value is 1, which suggests that the token is mutable. and 0 suggest is not mutable.
editionNonce	253	This is an integer value (int255) that represents the edition nonce for the token.
tokenStandard	2	This is an integer value (int2) that represents the token standard for the program.

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# PROJECT OVERVIEW APERIL.

#### URI Metadata

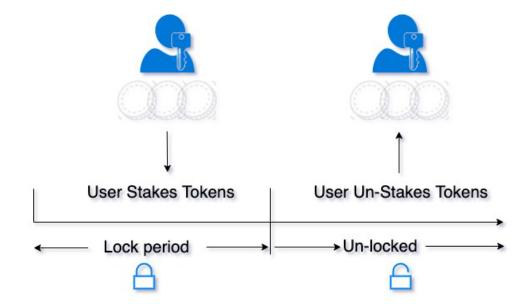
URI metadata in Solana refers to the metadata associated with a token that is retrieved from its URI (Uniform Resource Identifier). In this case, the token's URI is https://bafkreibzburj6q3mgnps5oato54et7ujclpvrev7qtxyipjtoua72abw7e.ipfs.nftstorage.link.

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## What is a Staking Contract?

A smart contract which allows users to stake and un-stake a specified ERC20 token. Staked tokens are locked for a specific length of time (set by the contrat owner at the outset). Once the time period has elapsed, the user can remove their tokens again.



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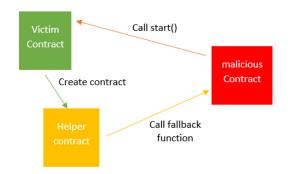


### I Reentrancy Check

# The Project Owners of APERIL have implemented Reentrancy Guard Library

The Team has done a great job to avoid potential reentrancy issues in the contract.

You can read more about the reentrancy library used. ReentrancyGuard



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#### **SMART CONTRACT VULNERABILITY**

### **DETAILS APERIL.**

SWC-108 - State Variable Default Visibility.

**CWE-710: Improper Adherence to Coding Standards** 

## **Description:**

Labeling the visibility explicitly makes it easier to catch incorrect assumptions about who can access the variable.

### Remediation:

Variables can be specified as being public, internal or private. Explicitly define visibility for all state variables.

#### **References:**

Ethereum Smart Contract Best Practices - Explicitly mark visibility in functions and state variables

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# TECHNICAL FINDINGS APERIL.

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.
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1 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.

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#### **I 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
<ul><li>Critical</li></ul>	0	0	0
High	0	0	0
Medium	0	0	0
Low	0	0	0
1 Informational	0	0	0
Total	0	0	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.

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# SOCIAL MEDIA CHECKS APERIL.

Social Media	URL	Result
Website	https://www.aperil.net/	Pass
Telegram	https://t.me/AperilSOL	Pass
Twitter	https://twitter.com/Aperil_SOL	Pass
Facebook		N/A
Reddit	N/A	N/A
Instagram	N/A	N/A
CoinGecko	N/A	N/A
Github		N/A
CMC	N/A	N/A
Email	N/A	Contact
Other		Fail

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 needs a bit of improvement.

**Project Owner Notes:** 

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# ASSESSMENT RESULTS APERIL.

#### Score Rsesults

Review	Score
Overall Score	82/100
Auditor Score	81/100

Review by Section	Score
Manual Scan Score	14
SWC Scan Score	35
Advance Check Score	33

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.



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## Important Notes for APERIL

- No vulnerabilities were found.
- Contract by DEXLAB MINTING LAB.

# Auditor Score =81 Audit Passed



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### Appendix

## **Finding Categories**

#### Centralization / Privilege

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

#### **Gas Optimization**

Gas Optimization findings do not affect the functionality of the code but generate different, more optimalEVM 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 howblock.timestamp works.

#### **Control Flow**

Control Flow findings concern the access control imposed on functions, such as owneronly functionsbeing 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 mayresult in a vulnerability.

#### Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to makethe 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 require statements on the input variables than a setterfunction.

#### **Coding Best Practices**

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

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#### 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 thirdparty 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.

