ASSURE DEFI®
THE VERIFICATION GOLD STANDARD

Security Assessment:

Neuraswap TOKEN

January 11, 2025

- Audit Status: **Pass**
- Audit Edition: **Advance**

Risk Analysis

Classifications of Manual Risk Results

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

Manual Code Review Risk Results

Contract Privilege	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
Can Pause Trade?	Pass
Pause Transfer?	Not-Detected
Max Tx?	Pass
Is Anti Whale?	Not-Detected
Is Anti Bot?	Not-Detected

Contract Privilege	Description
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	0xA038Df4FAdF1948929fAD6Ec44650a73f47B31C4
Self Destruct?	Not Detected
External Call?	Not-Detected
Other?	Not Detected
Holders	2
Auditor Confidence	Medium
KYC Present	No
KYC URL	

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.

Project Overview

Token Summary

Parameter	Result
Address	0xaAaa5B1D957EC72F7B2B80B93068b93311deB2fE
Name	Neuraswap
Token Tracker	Neuraswap (NEU)
Decimals	18
Supply	100,000,000
Platform	ETHEREUM
compiler	v0.8.4+commit.c7e474f2
Contract Name	StandardToken
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://etherscan.io/address/0xaAaa5B1D957EC72F7B2B80B93068b93311deB2fE#code
Payment Tx	Corporate

Main Contract Assessed
Contract Name

Name	Contract	Live
Neuraswap	0xaAaa5B1D957EC72F7B2B80B93068b93311deB2fE	Yes

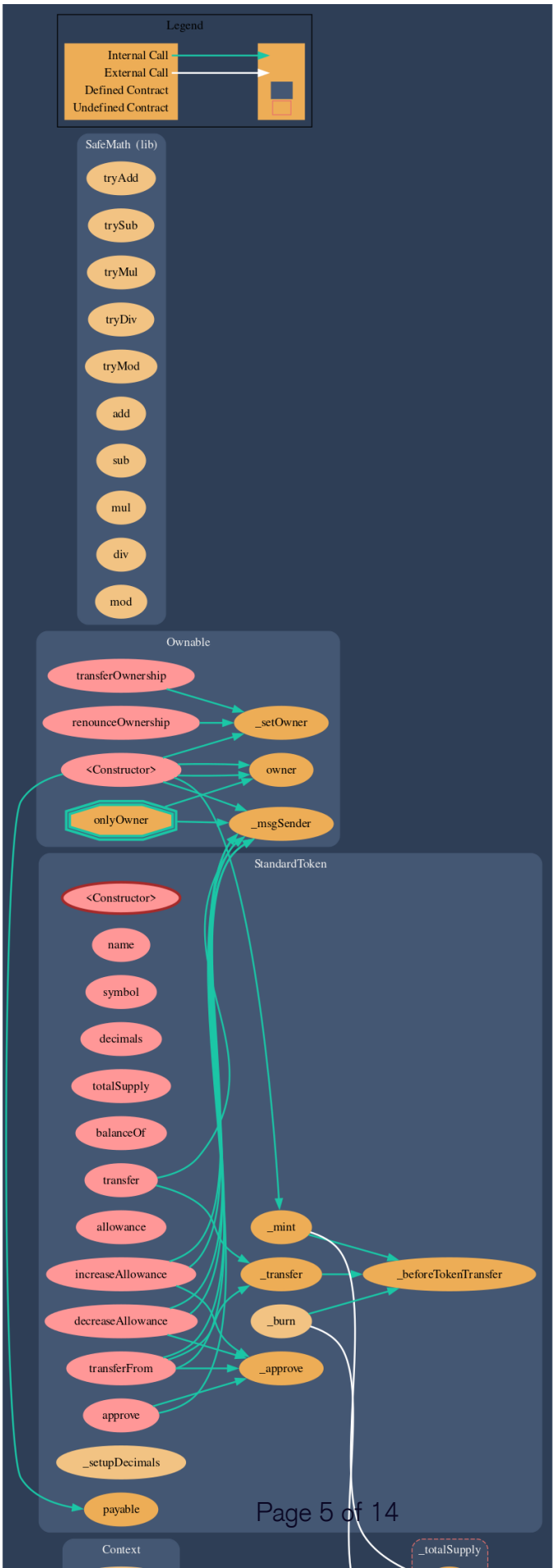
TestNet Contract was Not Assessed

Solidity Code Provided

SolID	File Sha-1	FileName
Neuraswap	995f0e16243eff9f4e673dd69fcef47a0f8f09d0	Neuraswap.sol
Neuraswap		.sol
Neuraswap		.sol
Neuraswap		.sol
Neuraswap		.sol
Neuraswap		.sol

Call Graph

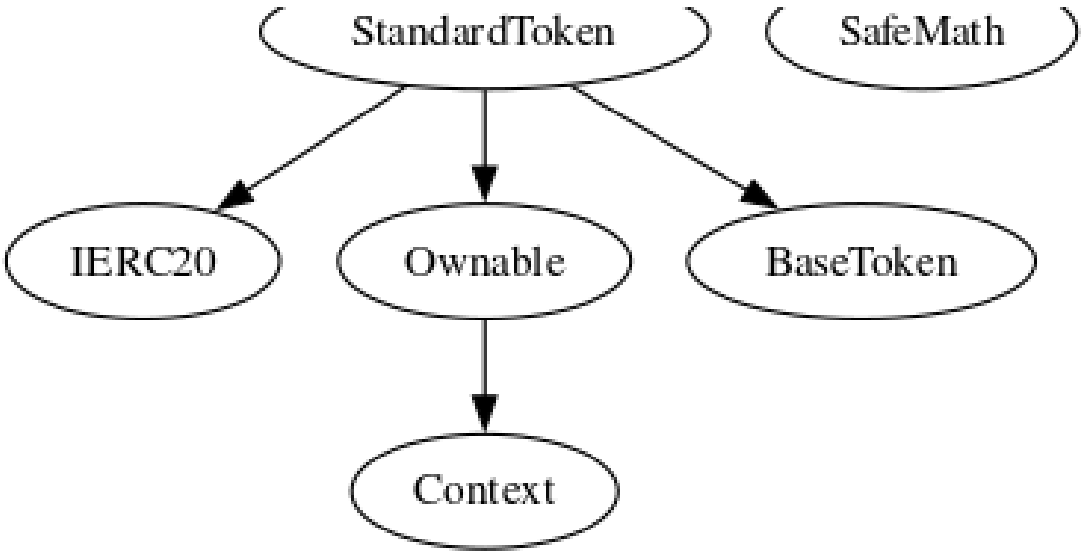
The contract for Neuraswap has the following call graph structure.



Inheritance

The contract for Neuraswap has the following inheritance structure.

The Project has a Total Supply of 100,000,000



NEU-14 | Unnecessary Use Of SafeMath

Category	Severity	Location	Status
Logical Issue	Medium	Neuraswap.sol: L: 0 C: 0	Detected

Description

The SafeMath library is used unnecessarily. With Solidity compiler versions 0.8.0 or newer, arithmetic operations
will automatically revert in case of integer overflow or underflow.
library SafeMath {
An implementation of SafeMath library is found.
using SafeMath for uint256;
SafeMath library is used for uint256 type in contract.

Remediation

We advise removing the usage of SafeMath library and using the built-in arithmetic operations provided by the
Solidity programming language

Project Action

Technical Findings Summary

Classification of Risk

Severity	Description
Critical	Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks.
High	Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project.
Medium	Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform
Low	Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions.
Informational	Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code.

Findings

Severity	Found	Pending	Resolved
Critical	0	0	0
High	0	0	0
Medium	1	1	0
Low	0	0	0
Informational	0	0	0
Total	1	1	0

Social Media Checks

Social Media	URL	Result
Twitter	https://x.com/neuraswap	Pass
Other	https://discord.gg/MXggbYb5xy	Pass
Website	https://www.neuraswap.com	Pass
Telegram	https://t.me/neuraswap	Pass

We recommend to have 3 or more social media sources including a completed working websites.

Social Media Information Notes:

Auditor Notes: undefined

Project Owner Notes:

Assessment Results

Score Results

Review	Score
Overall Score	94/100
Auditor Score	89/100
Review by Section	**Score**
Manual Scan Score	22
Auto Scan Score	37
Advance Check Score	35

The Following Score System Has been Added to this page to help understand the value of the audit, the maximum score is 100, however to attain that value the project most pass and provide all the data needed for the assessment. Our Passing Score has been changed to 84 Points for a higher standard, if a project does not attain 85% is an automatic failure. Read our notes and final assessment below.

Audit Passed

Assessment Results

Important Notes:

- Code Structure: Follows standard ERC20 implementation. Uses OpenZeppelin libraries for security and reliability.ı
- Ownership: Owner can transfer and renounce ownership. Ensure owner address is secure to prevent unauthorized access.ı
- Allowance Management: Potential race condition with approve function. Recommend using increaseAllowance and decreaseAllowance to mitigate risks.ı
- Token Minting/Burning: _mint and _burn are internal; ensure they are only called in appropriate contexts. No public functions to mint/burn, reducing risk of unauthorized supply changes.ı
- Service Fee Handling: Ensure serviceFeeReceiver_ is a trusted address. Verify serviceFee_ is appropriate and justified.ı
- Gas Efficiency: Use of SafeMath is redundant in Solidity 0.8+, but ensures clarity. Consider removing SafeMath for gas optimization.ı
- Event Emissions: Proper events emitted for transfers and approvals. Consider additional events for minting and burning if needed.ı
- Testing and Verification: Ensure comprehensive testing, especially around edge cases and ownership transitions. Verify deployment parameters to prevent misconfigurations.

Auditor Score =89
Audit Passed

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 owner-only 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.

Disclaimer

Assure Defi has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocation for the Project, and users relying on this report should not consider this as having any merit for financial advice in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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