

Smart Contract Audits | KYC



## **PALLADIUM**

Security Assessment

# STINK Token October 27, 2022

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## **Assessment Summary**

This report has been prepared for STINK Token on the Binance Smart Chain network. AegisX provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- 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.



## **Technical Findings Summary**

## **Classification of Risk**

Severity	Description
<ul><li>Critical</li></ul>	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.
<ul><li>Major</li></ul>	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.
<ul><li>Medium</li></ul>	Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform
<ul><li>Minor</li></ul>	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.
1 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	Pend	ling Resolved
Critical	0	0	0
Major	0	0	0
<ul><li>Medium</li></ul>	0	0	0
Minor	4	4	0
1 Informational	0	0	0
Total	4	4	0



## **Project Overview**

## **Token Summary**

Parameter	Result
Address	0xdc42c3a92c4A03F9b9F3FBaBa0125286FDAa6772
Name	STINK
Token Tracker	STINK (STINK)
Decimals	18
Supply	100,000,000
Platform	Binance Smart Chain
compiler	v0.8.8+commit.dddeac2f
Contract Name	STINK
Optimization	200
LicenseType	MIT
Language	Solidity
Codebase	https://bscscan.com/address/0xdc42c3a92c4A03F9b9F3FBa Ba0125286FDAa6772#code
Payment Tx	



## **Project Overview**

## **Risk Analysis Summary**

Parameter	Result
Buy Tax	8%
Sale Tax	8%
Is honeypot?	Clean
Can edit tax?	Yes
ls anti whale?	Yes
ls blacklisted?	No
ls whitelisted?	Yes
Holders	Clean
Security Score	95/100
Auditor Score	95/100
Confidence Level	High

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.



# Main Contract Assessed Contract Name

Name	Contract	Live
STINK	Oxdc42c3a92c4A03F9b9F3FBaBa0125286FDAa6772	Yes

# TestNet Contract Assessed Contract Name

Name	Contract	Live
STINK	0x2600F37d7e12f59d4431e2984762D597515Fa3ea	Yes
	Solidity Code Provided	
SolID	File Sha-1	FileName
Stink	8cf7458c2dd3f03b5326fba25252640cb6c36b54 s	stink.sol



## **Mint Check**

The project owners of STINK do not have a mint function in the contract, owner cannot mint tokens after initial deploy.

The Project has a Total Supply of 100,000,000 and cannot mint any more than the Max Supply.

Mint Notes:

Auditor Notes: A mint function was not found, the contract total supply cannot changed.





## **Fees Check**

The project owners of STINK do not have the ability to set fees higher than 25%.

The team May have fees defined; however, they can't set those fees higher than 25% or may not be able to configure the same.

Tax Fee Notes:

Auditor Notes: The contract currently has 8% buy and 8% sale taxes, owner cannot change fees higher than 20%.





## **Blacklist Check**

The project owners of STINK do not have a blacklist function their contract.

The Project allow owners to transfer their tokens without any restrictions.

Token owner cannot blacklist the contract: Malicious or compromised owners can trap contracts relying on tokens with a blacklist.

**Blacklist Notes:** 

**Auditor Notes:** 





## MaxTx Check

The Project Owners of STINK can set max tx amount.

The ability to set MaxTx can be used as a bad actor, this can limit the ability of investors to sell their tokens at any given time if is set too low.

We recommend the project to set MaxTx to Total Supply or similar to avoid swap or transfer from failures.

MaxTX Notes:

Auditor Notes: There are Max Wallet, MaxBuylimit, and MaxSellLimit functions in the contract.





## **Pause Trade Check**

The Project Owners of STINK don't have the ability to stop or pause trading.

The Team has done a great job to avoid stop trading, and investors has the ability to trade at any given time without any problems

**Pause Trade Notes:** 

Auditor Notes: The project Owner can enable trading, however trading cannot be disabled once started.





## **Contract Ownership**

The contract ownership of STINK is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address
0x8324e730aab79b1dcec90eaf3025f9c4f1749a53
which can be viewed:

## **HERE**

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner's wallet is compromised, they could exploit these privileges.

We recommend the team renounce ownership at the right time, if possible, or gradually migrate to a timelock with governing functionalities regarding transparency and safety considerations.

We recommend the team use a Multisignature Wallet if the contract is not going to be renounced; this will give the team more control over the contract.



## **Liquidity Ownership**

The token does not have liquidity at the moment of the audit, block 20356565

If liquidity is unlocked, then the token developers can do what is infamously known as 'rugpull'. Once investors start buying token from the exchange, the liquidity pool will accumulate more and more coins of established value (e.g., ETH or BNB or Tether). This is because investors are basically sending these tokens of value to the exchange, to get the new token. Developers can withdraw this liquidity from the exchange, cash in all the value and run off with it. Liquidity is locked by renouncing the ownership of liquidity pool (LP) tokens for a fixed time period, by sending them to a time-lock smart contract. Without ownership of LP tokens, developers cannot get liquidity pool funds back. This provides confidence to the investors that the token developers will not run away with the liquidity money. It is now a standard practice that all token developers follow, and this is what really differentiates a scam coin from a real one.

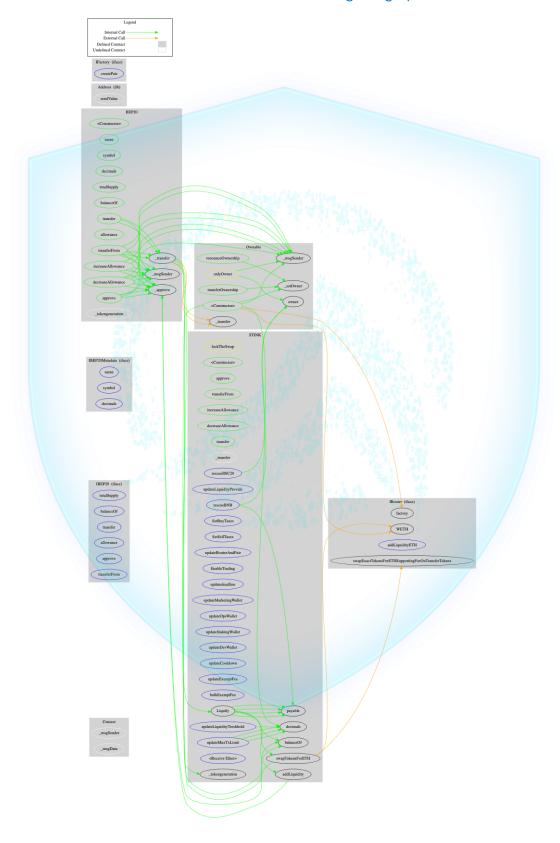
#### Read More





## **Call Graph**

The contract for STINK has the following call graph structure.

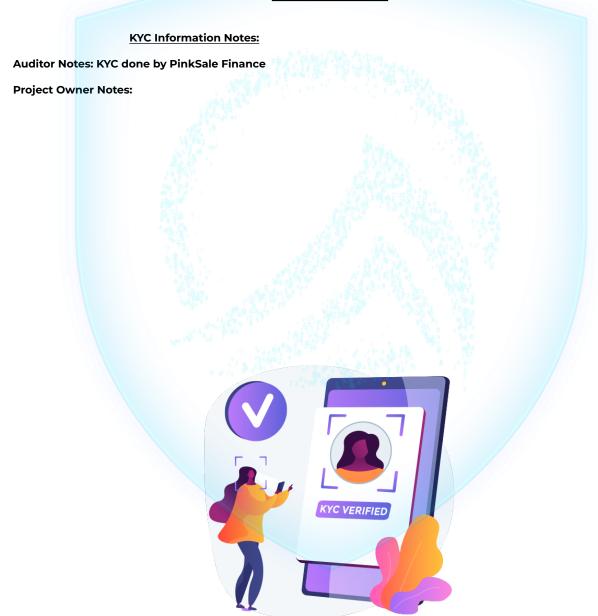




## **KYC Information**

The Project Owners of STINK have provided KYC Documentation.

KYC Certificate can be found on the Following: KYC Data





# Smart Contract Vulnerability Checks

ID	Severity	Name	File	locatio n
SWC-100	Pass	Function Default Visibility	stink.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	stink.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	stink.sol	L: 0 C: 0
SWC-103	Low	A floating pragma is set.	stink.sol	L: 7 C: 0
SWC-104	Pass	Unchecked Call Return Value.	stink.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	stink.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	stink.sol	L: 0 C: 0
SWC-107	Pass	Read of persistent state following external call.	stink.sol	L: 0 C: 0
SWC-108	Pass	State variable visibility is not set	stink.sol	L: 428 C: 29
SWC-109	Pass	Uninitialized Storage Pointer.	stink.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	stink.sol	L: 0 C: 0
SWC-111	Pass	Use of Deprecated Solidity Functions.	stink.sol	L: 0 C: 0
SWC-112	Pass	Delegate Call to Untrusted Callee.	stink.sol	L: 0 C: 0



ID	Severity	Name	File	locatio n
SWC-113	Pass	Multiple calls are executed in the same transaction.	stink.sol	L: 0 C: 0
SWC-114	Pass	Transaction Order Dependence.	stink.sol	L: 0 C: 0
SWC-115	Pass	Authorization through tx.origin.	stink.sol	L: 0 C: 0
SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	stink.sol	L: 0 C: 0
SWC-117	Pass	Signature Malleability.	stink.sol	L: 0 C: 0
SWC-118	Pass	Incorrect Constructor Name.	stink.sol	L: 0 C: 0
SWC-119	Pass	Shadowing State Variables.	stink.sol	L: 0 C: 0
SWC-120	Low	Potential use of block.number as source of randonmness.	stink.sol	L: 550 C: 12,L: 727 C: 24
SWC-121	Pass	Missing Protection against Signature Replay Attacks.	stink.sol	L: 0 C: 0
SWC-122	Pass	Lack of Proper Signature Verification.	stink.sol	L: 0 C: 0
SWC-123	Pass	Requirement Violation.	stink.sol	L: 0 C: 0
SWC-124	Pass	Write to Arbitrary Storage Location.	stink.sol	L: 0 C: 0
SWC-125	Pass	Incorrect Inheritance Order.	stink.sol	L: 0 C: 0
SWC-126	Pass	Insufficient Gas Griefing.	stink.sol	L: 0 C: 0



ID	Severity	Name	File	locatio n
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	stink.sol	L: 0 C: 0
SWC-128	Pass	DoS With Block Gas Limit.	stink.sol	L: 0 C: 0
SWC-129	Pass	Typographical Error.	stink.sol	L: 0 C: 0
SWC-130	Pass	Right-To-Left-Override control character (U +202E).	stink.sol	L: 0 C: 0
SWC-131	Pass	Presence of unused variables.	stink.sol	L: 0 C: 0
SWC-132	Pass	Unexpected Ether balance.	stink.sol	L: 0 C: 0
SWC-133	Pass	Hash Collisions with Multiple Variable Length Arguments.	stink.sol	L: 0 C: 0
SWC-134	Pass	Message call with hardcoded gas amount.	stink.sol	L: 0 C: 0
SWC-135	Pass	Code With No Effects (Irrelevant/Dead Code).	stink.sol	L: 0 C: 0
SWC-136	Pass	Unencrypted Private Data On-Chain.	stink.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-103 - Floating Pragma.

<b>CWE-664: Improper Cont</b>	rol of a Resource
Through its Lifetime.	

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#### **Description:**

Contracts should be deployed with the same compiler version and flags that they have been tested with thoroughly. Locking the pragma helps to ensure that contracts do not accidentally get deployed using, for example, an outdated compiler version that might introduce bugs that affect the contract system negatively.

#### **Remediation:**

Lock the pragma version and also consider known bugs (https://github.com/ethereum/solidity/releases) for the compiler version that is chosen.

Pragma statements can be allowed to float when a contract is intended for consumption by other developers, as in the case with contracts in a library or EthPM package. Otherwise, the developer would need to manually update the pragma in order to compile locally.

#### **References:**

Ethereum Smart Contract Best Practices - Lock pragmas to specific compiler version.



# 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?)

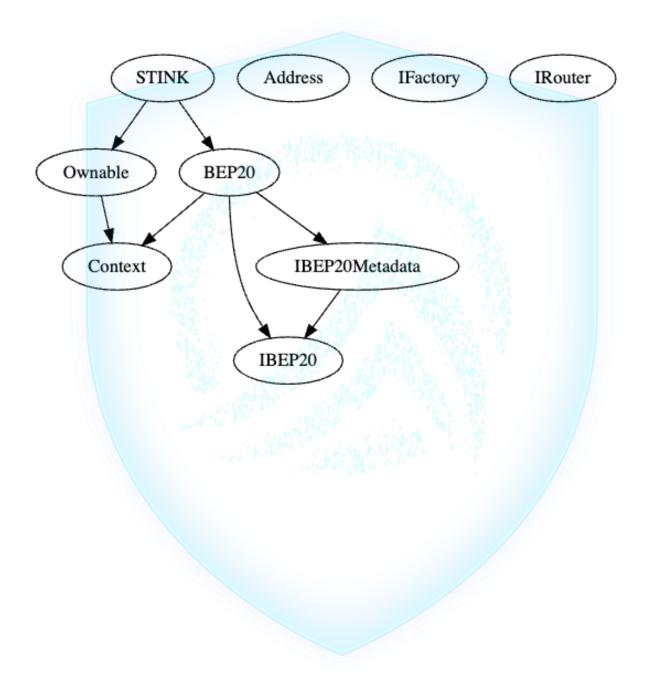
When can BLOCKHASH be safely used for a random number? When would it be unsafe?

The Run smart contract.



## **Inheritance**

# The contract for STINK has the following inheritance structure.





## **Privileged Functions (onlyOwner)**

Function Name	Parameters	Visibility
renounceOwnership	none	public
transferOwnership	none	public
updateLiquidityProvi de	none	external
updateLiquidityTresh hold	none	external
SetBuyTaxes	none	external
SetSellTaxes	none	external
updateRouterAndPai r	none	external
EnableTrading	none	external
updatedeadline	none	external
updateMarketingWall et	none	external
updateOpsWallet	none	external
updateStakingWallet	none	external



Function Name	Parameters	Visibility
updateDevWallet	none	external
updateCooldown	none	external
updateExemptFee	none	external
bulkExemptFee	none	external
updateMaxTxLimit	none	external
rescueBNB	none	external
rescueBSC20	none	external



## **Assessment Results**

- Owner can charge fees up to 20%.
- Owner can set max wallet and tx amount.
- Owner can't pause trading.
- No high-risk Exploits/Vulnerabilities Were Found in the Source Code.

## **Audit Passed**





## **STINK-01 | Potential Sandwich Attacks.**

Category	Severity	Location	Status
Security	Minor	stink.sol: 663,13	Pending

### **Description**

A sandwich attack might happen when an attacker observes a transaction swapping tokens or adding liquidity without setting restrictions on slippage or minimum output amount. The attacker can manipulate the exchange rate by frontrunning (before the transaction being attacked) a transaction to purchase one of the assets and make profits by back running (after the transaction being attacked) a transaction to sell the asset. The following functions are called without setting restrictions on slippage or minimum output amount, so transactions triggering these functions are vulnerable to sandwich attacks, especially when the input amount is large:

- swapExactTokensForETHSupportingFeeOnTransferTokens()
- addLiquidityETH()

#### Remediation

We recommend setting reasonable minimum output amounts, instead of 0, based on token prices when calling the aforementioned functions.

#### Referrences:

What Are Sandwich Attacks in DeFi – and How Can You Avoid Them?.



## STINK-03 | Lack of Input Validation.

Category	Severity	Location	Status
Volatile Code	Minor	stink.sol: 686,9, 719,8	Pending

## **Description**

The given input is missing the check for the non-zero address.

#### Remediation

We advise the client to add the check for the passed-in values to prevent unexpected errors as below:

```
...
require(receiver != address(0), "Receiver is the zero address");
...
```



## STINK-05 | Missing Event Emission.

Category	Severity	Location	Status
Volatile Code	Minor	stink.sol: 715,9	Pending

## **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.

#### Remediation

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



# STINK-06 | Conformance with Solidity Naming Conventions.

Category	Severity	Location	Status	
Coding Style	Minor	stink.sol: 733,14	Pending	

## Description

Solidity defines a naming convention that should be followed. Rule exceptions: Allow constant variable name/symbol/decimals to be lowercase. Allow \_ at the beginning of the mixed\_case match for private variables and unused parameters.



#### Remediation

Follow the Solidity naming convention.

https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-convention



# STINK-11 | Two addresses whitelisted in the constructor.

Category	Severity	Location	Status
Security	Minor	stink.sol: 457,9, 458, 9	Pending

## **Description**

During our review we noticed that two following addresses that are not labeled were whitelisted from fees and bypass enable/disable trading. 0xD152f549545093347A162Dce210e7293f1452150; 0x407993575c91ce7643a4d4cCACc9A98c36eE1BBE;

#### Remediation

Label what the purpose of those two addresses are, or remove them from being whitelisted.

## **Project Action**

Pending Customer Response



## **Social Media Checks**

Social Media	URL	Result
Website	https://drunkskunksdc.com/	Pass
Telegram	https://t.me/DrunkSkunksDCOfficial	Pass
Twitter	https://twitter.com/DrunkSkunksDC	Pass
OtherSocial	https://medium.com/@DrunkSkunksDC	Pass

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

**Social Media Information Notes:** 

**Auditor Notes: undefined** 



## **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.



## Disclaimer

AegisX 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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