



RUGFREECOINS



Death Pool Token

RugfreeCoins Verified on August 15th, 2023

Overview

- ✓ No mint function found, the owner cannot mint tokens after initial deployment.
- ✓ The owner can't set a max transaction limit
- ✓ The owner can't pause trading once it's enabled
- ✗ The owner must enable trade for the holders, if trading remains disabled, no one would be able to buy and sell.
- ✓ The owner can't change fees over 20%.
- ✓ The owner can't blacklist wallets.
- ✓ The owner can't set a max wallet limit
- ✓ The owner can't claim the contract's balance of its own token.

! HIGH SEVERITY ISSUES

The owner must enable trade for the holders, if trading remains disabled, no one would be able to buy and sell.

```
function enableTrading() external onlyOwner {  
    tradingActive = true;  
    swapEnabled = true;  
}
```

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Audit details



Audited project
Death Pool Token



Contract Address
0x16a159C4e155388a1E3F7bC6Ee6CA973310B73ed



Client contact
Death Pool Token Team



Blockchain
Binance Smart chain



Project website
<https://0xdeathpool.com/>

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 disclaimer below – **please make sure to read it in full.**

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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.

Background

RugfreeCoins was commissioned by the **Death Pool Token Team** to perform an audit of the smart contract.

<https://bscscan.com/address/0x16a159C4e155388a1E3F7bC6Ee6CA973310B73ed>

This audit focuses on verifying that the smart contract is secure, resilient, and working according to the specifications.

The information in this report should be used to understand the risk exposure of the smart contract, project feasibility, and long-term sustainability, and as a guide to improving the smart contract's security posture by remediating the identified issues.

Tokenomics

▲ 1% tax when buying

1% of trade goes to the marketing wallet in BNB

0% of trade goes to the Liquidity Pool

▲ 2% tax when selling












2% of trade goes to the marketing wallet in BNB

0% of trade goes to the Liquidity Pool

Target market and the concept

- ▶ Anyone who's interested in the Crypto space with long-term investment plans.
- ▶ Anyone who's ready to earn a passive income by holding tokens.
- ▶ Anyone who's interested in trading tokens.
- ▶ Anyone who's interested in taking part in the Death Pool token ecosystem.
- ▶ Anyone who's interested in taking part in the future plans of Death Pool Token.
- ▶ Anyone who's interested in making financial transactions with any other party using Death Pool Token as the currency.

Potential to grow with score points

| | |
|---|----------------|
|  Project efficiency | 8 / 10 |
|  Project uniqueness | 7 / 10 |
|  Information quality | 8 / 10 |
|  Service quality | 8 / 10 |
|  System quality | 8 / 10 |
|  Impact on the community | 8 / 10 |
|  Impact on the business | 9 / 10 |
|  Preparing for the future | 8 / 10 |
|  Smart contract security | 9 / 10 |
|  Smart contract functionality assessment | 9 / 10 |
|  Total Score | 8.2/ 10 |

Contract details

Token contract details for 15th of August 2023





























| | |
|----------------------------------|--|
| Contract name | DeathPool |
| Contract address | 0x16a159C4e155388a1E3F7bC6Ee6CA973310B73ed |
| Token supply | 1,000,000,000,000,000 |
| Token ticker | DP |
| Decimals | 18 |
| Token holders | 1 |
| Transaction count | 1 |
| Contract deployer address | 0x52c44BE2dba61cb688050D0702BA99E440c3185f |
| Contract's current owner address | 0x52c44BE2dba61cb688050D0702BA99E440c3185f |

Contract code function details

| Nº | Category | Item | Result |
|----|---------------------------------------|--|--------|
| 1 | Coding conventions | BRC20 Token standards | PASS ▾ |
| | | Compile errors | PASS ▾ |
| | | Compiler version security | PASS ▾ |
| | | Visibility specifiers | PASS ▾ |
| | | Gas consumption | PASS ▾ |
| | | SafeMath features | PASS ▾ |
| | | Fallback usage | PASS ▾ |
| | | tx.origin usage | PASS ▾ |
| | | Deprecated items | PASS ▾ |
| | | Redundant code | LOW ▾ |
| | | Overriding variables | PASS ▾ |
| 2 | Function call audit | Authorization of function call | PASS ▾ |
| | | Low level function (call/delegate call) security | PASS ▾ |
| | | Returned value security | PASS ▾ |
| | | Self destruct function security | PASS ▾ |
| 3 | Business security & centralisation | Access control of owners | HIGH ▾ |
| | | Business logics | PASS ▾ |
| | | Business implementation | PASS ▾ |
| 4 | Integer overflow/underflow | | PASS ▾ |
| 5 | Reentrancy | | PASS ▾ |
| 6 | Exceptional reachable state | | PASS ▾ |
| 7 | Transaction ordering dependence | | PASS ▾ |
| 8 | Block properties dependence | | PASS ▾ |
| 9 | Pseudo random number generator (PRNG) | | PASS ▾ |
| 10 | DoS (Denial of Service) | | PASS ▾ |
| 11 | Token vesting implementation | | PASS ▾ |
| 12 | Fake deposit | | PASS ▾ |
| 13 | Event security | | PASS ▾ |

Contract description table

The below table represents the summary of the contracts and methods in the token contract. We scanned the whole contract and listed down all the Interfaces, functions, and implementations with their visibility and mutability.

| Contract | Type | Bases | | |
|----------------|-------------------|--|---|--|
| L | Function Name | Visibility | Mutability | Modifiers |
| | | | | |
| Context | Implementation | | | |
| L | _msgSender | Internal  | | |
| L | _msgData | Internal  | | |
| | | | | |
| IUniswapV2Pair | Interface | | | |
| L | name | External  | | NO  |
| L | symbol | External  | | NO  |
| L | decimals | External  | | NO  |
| L | totalSupply | External  | | NO  |
| L | balanceOf | External  | | NO  |
| L | allowance | External  | | NO  |
| L | approve | External  |  | NO  |
| L | transfer | External  |  | NO  |
| L | transferFrom | External  |  | NO  |
| L | DOMAIN_SEPARATOR | External  | | NO  |
| L | PERMIT_TYPEHASH | External  | | NO  |
| L | nonces | External  | | NO  |
| L | permit | External  |  | NO  |
| L | MINIMUM_LIQUIDITY | External  | | NO  |
| L | factory | External  | | NO  |
| L | token0 | External  | | NO  |

| | | | | |
|-------------------------------|----------------------|------------|---|------|
| L | token1 | External ! | | NO ! |
| L | getReserves | External ! | | NO ! |
| L | price0CumulativeLast | External ! | | NO ! |
| L | price1CumulativeLast | External ! | | NO ! |
| L | kLast | External ! | | NO ! |
| L | mint | External ! | ● | NO ! |
| L | burn | External ! | ● | NO ! |
| L | swap | External ! | ● | NO ! |
| L | skim | External ! | ● | NO ! |
| L | sync | External ! | ● | NO ! |
| L | initialize | External ! | ● | NO ! |
| | | | | |
| IUniswapV2 Factory | Interface | | | |
| L | feeTo | External ! | | NO ! |
| L | feeToSetter | External ! | | NO ! |
| L | getPair | External ! | | NO ! |
| L | allPairs | External ! | | NO ! |
| L | allPairsLength | External ! | | NO ! |
| L | createPair | External ! | ● | NO ! |
| L | setFeeTo | External ! | ● | NO ! |
| L | setFeeToSetter | External ! | ● | NO ! |
| | | | | |
| IERC20 | Interface | | | |
| L | totalSupply | External ! | | NO ! |
| L | balanceOf | External ! | | NO ! |
| L | transfer | External ! | ● | NO ! |
| L | allowance | External ! | | NO ! |
| L | approve | External ! | ● | NO ! |
| L | transferFrom | External ! | ● | NO ! |

| IERC20Metadata | Interface | IERC20 | | |
|----------------|----------------------|---|---|------|
| L | name | External ! | | NO ! |
| L | symbol | External ! | | NO ! |
| L | decimals | External ! | | NO ! |
| | | | | |
| ERC20 | Implementation | Context, IERC20, IERC20 Metadata | | |
| L | | Public ! | ● | NO ! |
| L | name | Public ! | | NO ! |
| L | symbol | Public ! | | NO ! |
| L | decimals | Public ! | | NO ! |
| L | totalSupply | Public ! | | NO ! |
| L | balanceOf | Public ! | | NO ! |
| L | transfer | Public ! | ● | NO ! |
| L | allowance | Public ! | | NO ! |
| L | approve | Public ! | ● | NO ! |
| L | transferFrom | Public ! | ● | NO ! |
| L | increaseAllowance | Public ! | ● | NO ! |
| L | decreaseAllowance | Public ! | ● | NO ! |
| L | _transfer | Internal 🔒 | ● | |
| L | _mint | Internal 🔒 | ● | |
| L | _burn | Internal 🔒 | ● | |
| L | _approve | Internal 🔒 | ● | |
| L | _beforeTokenTransfer | Internal 🔒 | ● | |
| | | | | |
| SafeMath | Library | | | |
| L | add | Internal 🔒 | | |
| L | sub | Internal 🔒 | | |

| | | | | |
|---------------------------|-----------------------|----------------|---|-----------|
| L | sub | Internal 🔒 | | |
| L | mul | Internal 🔒 | | |
| L | div | Internal 🔒 | | |
| L | div | Internal 🔒 | | |
| L | mod | Internal 🔒 | | |
| L | mod | Internal 🔒 | | |
| | | | | |
| Ownable | Implementation | Context | | |
| L | | Public ! | 🛑 | NO ! |
| L | owner | Public ! | | NO ! |
| L | renounceOwnership | Public ! | 🛑 | onlyOwner |
| L | transferOwnership | Public ! | 🛑 | onlyOwner |
| | | | | |
| SafeMathInt | Library | | | |
| L | mul | Internal 🔒 | | |
| L | div | Internal 🔒 | | |
| L | sub | Internal 🔒 | | |
| L | add | Internal 🔒 | | |
| L | abs | Internal 🔒 | | |
| L | toInt256Safe | Internal 🔒 | | |
| | | | | |
| SafeMathUint | Library | | | |
| L | toInt256Safe | Internal 🔒 | | |
| | | | | |
| IUniswapV2Router01 | Interface | | | |
| L | factory | External ! | | NO ! |
| L | WETH | External ! | | NO ! |
| L | addLiquidity | External ! | 🛑 | NO ! |
| L | addLiquidityETH | External ! | 💵 | NO ! |

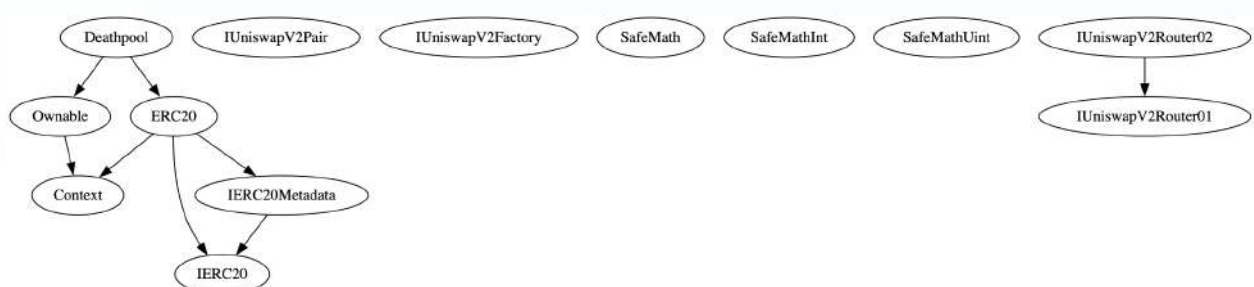
| | | | | |
|----------------------------|---|----------------------------|---|-----------|
| L | removeLiquidity | External ! |  | NO ! |
| L | removeLiquidityETH | External ! |  | NO ! |
| L | removeLiquidityWithPermit | External ! |  | NO ! |
| L | removeLiquidityETHWithPermit | External ! |  | NO ! |
| L | swapExactTokensForTokens | External ! |  | NO ! |
| L | swapTokensForExactTokens | External ! |  | NO ! |
| L | swapExactETHForTokens | External ! |  | NO ! |
| L | swapTokensForExactETH | External ! |  | NO ! |
| L | swapExactTokensForETH | External ! |  | NO ! |
| L | swapETHForExactTokens | External ! |  | NO ! |
| L | quote | External ! | | NO ! |
| L | getAmountOut | External ! | | NO ! |
| L | getAmountIn | External ! | | NO ! |
| L | getAmountsOut | External ! | | NO ! |
| L | getAmountsIn | External ! | | NO ! |
| | | | | |
| IUniswapV2 Router02 | Interface | IUniswapV2 Router01 | | |
| L | removeLiquidityETHSupportingFeeOnTransferTokens | External ! |  | NO ! |
| L | removeLiquidityETHWithPermitSupportingFeeOnTransferTokens | External ! |  | NO ! |
| L | swapExactTokensForTokensSupportingFeeOnTransferTokens | External ! |  | NO ! |
| L | swapExactETHForTokensSupportingFeeOnTransferTokens | External ! |  | NO ! |
| L | swapExactTokensForETHSupportingFeeOnTransferTokens | External ! |  | NO ! |
| | | | | |
| Deathpool | Implementation | ERC20, Ownable | | |
| L | | Public ! |  | ERC20 |
| L | | External ! |  | NO ! |
| L | enableTrading | External ! |  | onlyOwner |

| | | | | |
|---|------------------------------|------------|---|-----------|
| L | airdropToWallets | External ! | ● | onlyOwner |
| L | decimals | Public ! | | NO ! |
| L | updateSwapEnabled | External ! | ● | onlyOwner |
| L | updateBFees | External ! | ● | onlyOwner |
| L | updateSFees | External ! | ● | onlyOwner |
| L | updateTransferFees | External ! | ● | onlyOwner |
| L | excludeFromFees | Public ! | ● | onlyOwner |
| L | setAutomatedMarketMakerPair | External ! | ● | onlyOwner |
| L | _setAutomatedMarketMakerPair | Private 🔒 | ● | |
| L | updateMarketingWallet | External ! | ● | onlyOwner |
| L | isExcludedFromFees | External ! | | NO ! |
| L | _transfer | Internal 🔒 | ● | |
| L | swapTokensForEth | Private 🔒 | ● | |
| L | addLiquidity | Private 🔒 | ● | |
| L | resetTaxAmount | Public ! | ● | onlyOwner |
| L | swapBack | Private 🔒 | ● | |

Legend

| Symbol | Meaning |
|--------|---------------------------|
| ● | Function can modify state |
| 💰 | Function is payable |

Inheritance Hierarchy



Security issue checking status

❖ High severity issues

The owner must enable trade for the holders, if trading remains disabled, no one would be able to buy and sell.

```
function enableTrading() external onlyOwner {  
    tradingActive = true;  
    swapEnabled = true;  
}
```

❖ Medium severity issues

No medium severity issues found

❖ Low severity issues

The "RewardTriggered" and "OwnerForcedSwapBack" events are not utilized within the contract; thus, these unnecessary events should be removed.

```
event RewardTriggered(uint256 amount);  
  
event OwnerForcedSwapBack(uint256 timestamp);
```

The deployer serves as the initial owner, and within the constructor, an attempt is made to transfer ownership back to the deployer.



```
transferOwnership(_owner);
```

Owner privileges

- ❖ Owner can enable trading, once enabled can not disable again

```
function enableTrading() external onlyOwner {  
    tradingActive = true;  
    swapEnabled = true;  
}
```

- ❖ Owner can airdrop tokens to users before enabling trading

```
function airdropToWallets(  
    address[] memory airdropWallets,  
    uint256[] memory amounts  
) external onlyOwner returns (bool) {  
    require(  
        !tradingActive,  
        "Trading is already active, cannot airdrop after launch."  
    );  
    require(  
        airdropWallets.length == amounts.length,  
        "arrays must be the same length"  
    );  
    require(  
        airdropWallets.length < 200,  
        "Can only airdrop 200 wallets per txn due to gas limits"  
    ); // allows for airdrop + launch at the same exact time, reducing delays  
    and reducing sniper input.  
    for (uint256 i = 0; i < airdropWallets.length; i++) {  
        address wallet = airdropWallets[i];  
        uint256 amount = amounts[i];  
        _transfer(msg.sender, wallet, amount);  
    }  
    return true;  
}
```

- ❖ Owner can enable/disable swapping

```
function updateSwapEnabled(bool enabled) external onlyOwner {
    swapEnabled = enabled;
}
```

- ❖ Owner can change all buy fees maximum up-to 10%

```
function updateBFees(
    uint256 _marketingFee,
    uint256 _liquidityFee
) external onlyOwner {
    buyMarketingFee = _marketingFee;
    buyLiquidityFee = _liquidityFee;
    buyTotalFees = buyMarketingFee + buyLiquidityFee;
    require(buyTotalFees <= 10, "Must keep fees at 10% or less");
}
```

- ❖ Owner can change all sell fees maximum up to 10%

```
function updateSFees(
    uint256 _marketingFee,
    uint256 _liquidityFee
) external onlyOwner {
    sellMarketingFee = _marketingFee;
    sellLiquidityFee = _liquidityFee;
    sellTotalFees = sellMarketingFee + sellLiquidityFee;
    require(sellTotalFees <= 10, "Must keep fees at 10% or less");
}
```

- ❖ Owner can change all transfer fees maximum up-to 10%

```
function updateTransferFees(
    uint256 _marketingFee,
    uint256 _liquidityFee
) external onlyOwner {
    transferMarketingFee = _marketingFee;
    transferLiquidityFee = _liquidityFee;
    transferTotalFees = transferMarketingFee + transferLiquidityFee;
    require(transferTotalFees <= 10, "Must keep fees at 10% or less");
}
```

- ❖ Owner can include/exclude wallets from fees

```
function excludeFromFees(address account, bool excluded) public onlyOwner {
    _isExcludedFromFees[account] = excluded;
    emit ExcludeFromFees(account, excluded);
}
```

- ❖ Owner can add/remove new pairs

```
function setAutomatedMarketMakerPair(
    address pair,
    bool value
) external onlyOwner {
    require(
        pair != uniswapV2Pair,
        "The pair cannot be removed from automatedMarketMakerPairs"
    );
    _setAutomatedMarketMakerPair(pair, value);
}
```

❖ Owner can change marketing wallet

```
function updateMarketingWallet(  
    address newMarketingWallet  
) external onlyOwner {  
    emit marketingWalletUpdated(newMarketingWallet, marketingWallet);  
    marketingWallet = newMarketingWallet;  
}
```

Audit conclusion

RugFreeCoins team has performed in-depth testing, line-by-line manual code review, and automated audit of the smart contract. The smart contract was analyzed mainly for common smart contract vulnerabilities, exploits, manipulations, and hacks. According to the smart contract audit.

| | |
|---|---------------|
| Smart contract functional Status: | PASS ▾ |
| Smart contract security Status: | HIGH ISSUES ▾ |
| Number of risk issues: | 3 |
| Solidity code functional issue level: | PASS ▾ |
| Number of owner privileges: | 9 |
| Centralization risk correlated to the active owner: | HIGH ▾ |
| Smart contract active ownership: | ACTIVE ▾ |