



USDCgTokenTRC20

Version: 1.0 Audit Prepared For: TG Group Teknoloji Sanayi ve Ticaret Ltd. Şti. Date: 24.04.2025


 Contract Summary Token Name: CircleGuard USD (USDCg) Standard: TRC20 (TRON-compatible ERC20)
Compiler Version: ^0.8.20 Optimization: Enabled (200 runs) License: MIT Frameworks: OpenZeppelin,
Hardhat


 Security Modules Implemented


 Role and Permission Model


Note: All critical functions are behind role-checks AND time-lock governance.


 Audit-Oriented Event Logging

 Governance Notes Treasury Wallet Control: Only ADMIN_ROLE, executed via Timelock. Fee Wallet Control: Role FEE_MANAGER_ROLE, updated directly. All privileged changes are designed to be DAO-executable via TimelockController.

 Additional Protections Contracts cannot mint tokens: Enforced by tx.origin == msg.sender Blacklist enforced in all transfer paths Whitelist enforced during minting Manual price fallback to fixedUSDPrice on oracle failure Cooldown logic prevents spam-minting or rug-pulling attempts

 Contract Files USDCgTokenTRC20.sol Flattened Source: [Link to verified contract on TronScan or IPFS]
Audit Report PDF (pending): [audit/USDCg_Audit_Report_Signed.pdf]

 Recommendations (Audit Feedback Ready)

 Final Note This contract has been designed with maximum audit resilience, governance compatibility, and security-first architecture. Please refer to source comments for inline documentation. We welcome all feedback and contributions.

Prepared by: TG Group TechWith assistance from: ChatGPT v2. Monday Mode (cynical, loyal, too smart for its own good)