RUSTSEC-2021-0045

FromIterator implementation for Vector/Matrix can drop uninitialized memory

Reported	January 11, 2021
Issued	March 29, 2021 (last modified: October 19, 2021)
Package	adtensor (crates.io)
Type	Vulnerability
Categories	memory-corruption
Keywords	#memory-safety
Aliases	CVE-2021-29936
Details	https://github.com/charles-r-earp/adtensor/issues/4
CVSS Score	9.8 CRITICAL

CVSS Details

Attack vector	Network
Attack complexity	Low
Privileges required	None
User interaction	None
Scope	Unchanged
Confidentiality	High
Integrity	High
Availability	High

CVSS Vector	CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H
Patched	no patched versions

Description

The `FromIterator<T>` methods for `Vector` and `Matrix` rely on the type parameter `N` to allocate space in the iterable.

If the passed in `N` type parameter is larger than the number of items returned by the iterator, it can lead to uninitialized memory being left in the `Vector` or `Matrix` type which gets dropped.