



ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OPPT-2024-0114; FRL-11809-04-OCSP]

1,1-Dichloroethane; Risk Evaluation under the Toxic Substances Control Act (TSCA);

Notice of Availability

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA or Agency) is announcing the availability of the final risk evaluation under the Toxic Substances Control Act (TSCA) for 1,1-dichloroethane (CASRN 75-34-3). The purpose of risk evaluations under TSCA is to determine whether a chemical substance presents an unreasonable risk of injury to health or the environment under the conditions of use, including unreasonable risk to potentially exposed or susceptible subpopulations identified as relevant to the risk evaluation by EPA, and without consideration of costs or non-risk factors. EPA used the best available science to prepare this final risk evaluation and determined, based on the weight of scientific evidence, that 1,1-dichloroethane presents unreasonable risk to human health driven by three conditions of use because of risks to workers.

ADDRESSES: The docket for this action, identified by docket identification (ID) number EPA-HQ-OPPT-2024-0114, is available online at <https://www.regulations.gov>. Additional information about dockets generally, along with instructions for visiting the docket in-person, is available at <https://www.epa.gov/dockets>.

FOR FURTHER INFORMATION CONTACT:

For technical information: Seema Schappelle, Existing Chemicals Risk Assessment Division (6.6308-AA), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: 202-564-8006; email address: 1.1.Dichloroethane.TSCA@epa.gov.

For general information: The TSCA-Hotline, ABVI-Goodwill, 422 South Clinton Ave., Rochester, NY 14620; telephone number: (202) 554-1404; email address: *TSCA-Hotline@epa.gov*.

SUPPLEMENTARY INFORMATION:

I. Executive Summary

A. Does this action apply to me?

This action is directed to the public in general and may be of particular interest to those involved in the manufacture (defined under TSCA section 3(9) to include import), processing, distribution, use, and disposal of 1,1-dichloroethane, related industry trade organizations, non-governmental organizations with an interest in human and environmental health, State and local governments, Tribal Nations, and/or those interested in the assessment of risks involving chemical substances and mixtures regulated under TSCA. As such, the Agency has not attempted to describe all the specific entities that this action might apply to. If you need help determining applicability, consult the technical contact listed under **FOR FURTHER INFORMATION CONTACT**.

B. What is the Agency's authority for taking this action?

The Agency conducted this risk evaluation under TSCA section 6, 15 U.S.C. 2605, which requires that EPA conduct risk evaluations on chemical substances and identifies the minimum components EPA must include in the risk evaluation. Each risk evaluation must be conducted consistent with the best available science, be based on the weight of the scientific evidence, consider reasonably available information, and not consider costs or non-risk factors. 15 U.S.C. 2625(h), (i), and (k). See also the implementing procedural regulations at 40 CFR part 702 and for more information about the TSCA risk evaluation process for existing chemicals, go to <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca>.

C. What action is the Agency taking?

EPA is announcing the availability of the final risk evaluation under TSCA for 1,1-

dichloroethane. The purpose of risk evaluations under TSCA is to determine whether a chemical substance presents an unreasonable risk of injury to health or the environment under the conditions of use, including unreasonable risk to potentially exposed or susceptible subpopulations identified as relevant to the risk evaluation by EPA, and without consideration of costs or non-risk factors. EPA has used the best available science to prepare this final risk evaluation and, based on the weight of scientific evidence, determined that 1,1-dichloroethane poses unreasonable risk to human health driven by three conditions of use because of risks to workers. Upon a determination of unreasonable risk, EPA must initiate risk management action as required pursuant to TSCA section 6(a), 15 U.S.C. 2605(a), to address the unreasonable risk.

II. Background

A. What is 1,1-Dichloroethane?

1,1-Dichloroethane, a chlorinated solvent, is a colorless, oily liquid with a chloroform- or ether-like odor. It is both volatile and soluble in water. It is used to produce other chlorinated solvents that have broad industrial applications. Relatively small amounts of 1,1-dichloroethane support commercial use as a laboratory chemical. The reported total domestic production volume in 2020 was between 100 million and 1 billion pounds for two corporations located in the southern United States.

B. Summary of Activities for the Risk Evaluation of 1,1-Dichloroethane

In December 2019, EPA announced its designation of 1,1-dichloroethane as a high priority substance for risk evaluation under TSCA (Ref. 1). In April 2020, EPA sought public comment on the draft scope of the 1,1-dichloroethane risk evaluation (Ref. 2), and after considering public comments, issued the final scope in August 2020 (Ref. 3). In July 2024, EPA released the draft risk evaluation for public comment and external peer review by the Science Advisory Committee on Chemicals (SACC) (Ref. 4). As part of the SACC deliberations, the Agency held a virtual public meeting to discuss the draft risk evaluation in September 2024. For more information about this meeting, go to the SACC website at <https://www.epa.gov/tsca-peer->

review/science-advisory-committee-chemicals-meetings.

These documents, other supporting documents, and public comments are in docket EPA-HQ-OPPT-2018-0426 and docket EPA-HQ-OPPT-2024-0114. The following three documents are being released with this notice:

- A response to comments document entitled, “Summary of and Response to External Peer Review and Public Comments on the Risk Evaluation for 1,1-Dichloroethane and Human Health Hazard Technical Support Document for 1,2-Dichloroethane;”

- A nontechnical summary of the final risk evaluation entitled, “Nontechnical Summary of the TSCA Risk Evaluation for 1,1-Dichloroethane;” and

- The final risk evaluation entitled, “Risk Evaluation for 1,1-Dichloroethane.”

III. Unreasonable Risk Determination

EPA determined that 1,1-dichloroethane presents an unreasonable risk of injury to human health driven by three of the eight conditions of use (COUs). The three COUs that significantly contribute to the unreasonable risk determination for 1,1-dichloroethane based on identified risk to workers due to non-cancer and cancer effects due to inhalation exposure are:

- Processing as a reactant – intermediate in all other basic organic chemical manufacturing;

- Processing as a reactant – intermediate in all other chemical product and preparation manufacturing; and

- Processing – recycling.

The unreasonable risk identified would no longer be unreasonable when using respirators in a manner that achieves a minimum Assigned Protection Factor (APF) 10 to 25 (depending on the expected workplace activity, represented in the risk evaluation by Similar Exposure Groups (SEGs)) or implementing other exposure controls (*e.g.*, engineering controls) that may be equally or more effective in reducing worker exposures. EPA received inhalation monitoring data from a TSCA section 4(a)(2) test order submission for the manufacture of 1,1-dichloroethane as an

isolated intermediate. The test order submission characterized the facility control operations known and expected to be in place depending on the potential exposure during standard, task-specific, and emergency activities - including engineering controls, administrative controls, personal protective equipment (PPE) (*e.g.*, respirators achieving a level of APF 10–1,000), and chemical safety plans. Consistent with the amendments to the procedures for chemical risk evaluation under TSCA finalized in May 2024 (89 FR 37028; May 3, 2024), EPA considered all reasonably available information, including this test order data substantiating the use of PPE, when determining what COUs significantly contribute to the unreasonable risk determination. EPA did not identify unreasonable risk of injury to workers from non-cancer dermal exposure, or unreasonable risk of injury to occupational non-users, the general population, or the environment under any COUs.

IV. Next Step is Risk Management

Consistent with TSCA section 6(a), EPA will propose a risk management regulatory action applying requirements to the extent necessary so that 1,1-dichloroethane no longer presents an unreasonable risk. EPA expects to focus its risk management action on the conditions of use that significantly contribute to the unreasonable risk. In proposing a rule and selecting among requirements, consistent with TSCA section 6(c)(2), EPA will consider and factor in, to the extent practicable: (i) the effects of 1,1-dichloroethane on health and the environment, (ii) the magnitude of exposure to 1,1-dichloroethane of human beings and the environment, (iii) the benefits of 1,1-dichloroethane for various uses, and (iv) the reasonably ascertainable economic consequences of the rule.

Like the prioritization and risk evaluation processes, there will be an opportunity for public comment on any proposed risk management actions.

V. References

The following is a listing of the documents that are specifically referenced in this document. The docket includes these documents and other information considered by EPA,

including documents that are referenced within the documents that are included in the docket, even if the referenced document is not physically located in the docket. For assistance in locating these other documents, please consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

1. EPA. High-Priority Substance Designations Under the Toxic Substances Control Act and Initiation of Risk Evaluation on High-Priority Substances. *Federal Register*. 84 FR 71924, December 30, 2019 (FRL-10003-15).

2. EPA. 1,1-Dichloroethane; Draft Scope of the Risk Evaluation to be Conducted under the Toxic Substances Control Act (TSCA); Notice of Availability and Request for Comments. *Federal Register*. 85 FR 19941, April 9, 2020 (FRL-10007-11).

3. EPA. 1,1-Dichloroethane; Final Scope of the Risk Evaluation to be Conducted under the Toxic Substances Control Act (TSCA); Notice of Availability. *Federal Register*. 85 FR 55281, September 4, 2020 (FRL-10013-90).

4. EPA. 1,1-Dichloroethane; Draft Risk Evaluation under the Toxic Substances Control Act (TSCA); Notice of Availability and Request for Comments. *Federal Register*. 89 FR 54815, July 2, 2024 (FRL-11809-03).

Authority: 15 U.S.C. 2601 *et seq.*

Dated: [June 17, 2025](#).

Nancy B. Beck,

Principal Deputy Assistance Administrator, Office of Chemical Safety and Pollution Prevention.

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