June 2025

REPORTABLE QUANTITY CALCULATOR

INTRODUCTION

The Reportable Quantity (RQ) Calculator is an assistance tool that provides the Department of Energy (DOE) and its contractors with an efficient and user-friendly way to determine compliance with applicable reporting requirements for releases of hazardous substances to the environment. The tool helps to expedite the determination of whether an RQ was exceeded and provides contact information for reporting releases to the appropriate regulatory authorities.

BACKGROUND AND PURPOSE

Any U.S. entity who handles hazardous substances or extremely hazardous substances is subject to both the spill reporting requirements of Section 103(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Section 304 of the Emergency Planning and Community Right-to-Know Act (EPCRA). Any release of a hazardous substance or an extremely hazardous substance to the environment, in an amount equal to or exceeding its RQ within a 24-hour period, must be reported to the proper authorities (40 CFR 302; 40 CFR 355, Subpart C). Responsive spill reporting involves determining how much material has been released in a 24-hour period, calculating if that amount exceeds its RQ, and reporting this information to the appropriate authorities in a timely manner. The DOE Office of Environment, Health, Safety and Security (EHSS) developed the RQ Calculator to assist DOE and its contractors in addressing these release notification requirements. It is the responsibility of the user to ensure appropriate reporting.

DETERMINING A RELEASE

The RQ Calculator determines the amount of a hazardous substance[1] released based on its rate of release during a 24-hour period. For hazardous substances in a mixture, the RQ Calculator uses the mass of the hazardous substance in the mixture released over a 24-hour period to determine the amount of the reportable substance that has been released.

FEATURES OF THE RQ CALCULATOR

The RQ Calculator is a web-based tool first developed in 1998 to assist DOE in meeting spill reporting requirements. Version 4.3 of the calculator contains an up-to-date[2] listing of RQ values for hazardous and extremely hazardous substances and their Chemical Abstract Service Registry Numbers (CASRN). The RQ Calculator website provides up-to-date DOE and Environmental Protection Agency guidance, applicable Federal regulations and reporting information (i.e., contact information for the appropriate governmental

[1] Due to complexities of calculating reportable quantities for radionuclides, radionuclides are not included in the RQ calculator. However, radionuclides do have reportable quantities. Please see the guidance on the RQ Calculator website for resources on radionuclide reporting.
[2] As of May 31, 2025.

authorities). Since the calculator is web-based, it can be accessed at any time and can be used on computers, laptops, tablets and mobile phones. No special equipment or software is needed to use the calculator.

How to Use the RQ Calculator

Step 1.

Open a web browser and copy or type in the link for the RQ Calculator: https://rqcalculator.projectenhancement.com/. You will then be taken to the RQ Calculator home screen (Figure 1).

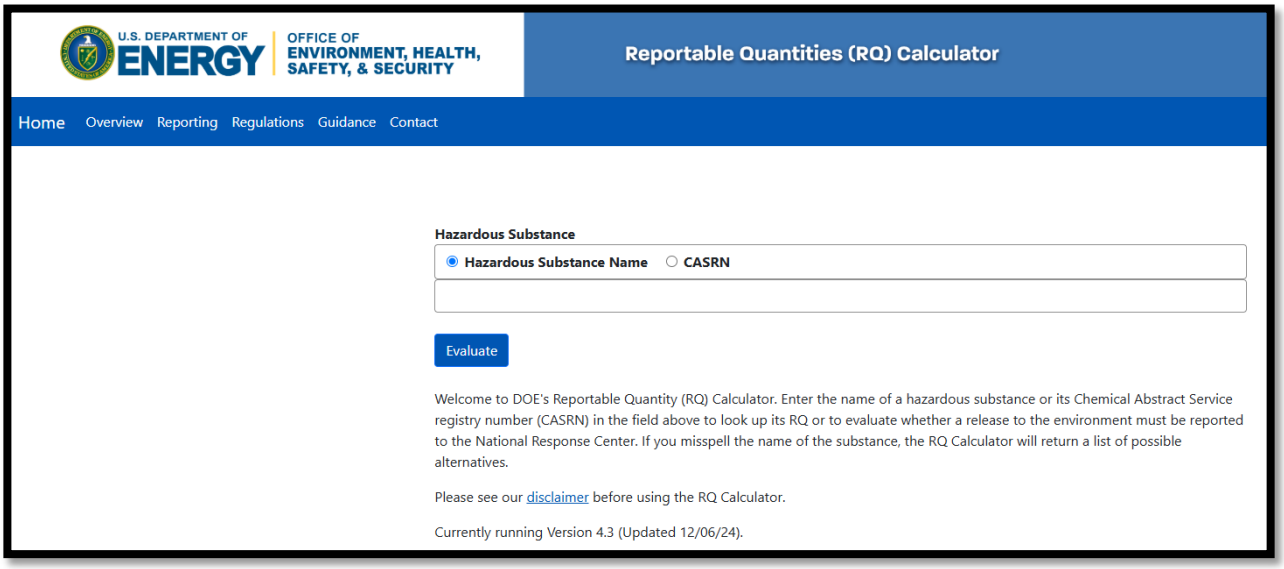


Figure 1

Step 2.

Select whether to search by Hazardous Substance name or CASRN. Input the name of the hazardous substance (e.g., acetone) or the CASRN number (e.g., 67641) in the search field, then click the 'Evaluate' button (Figure 2).

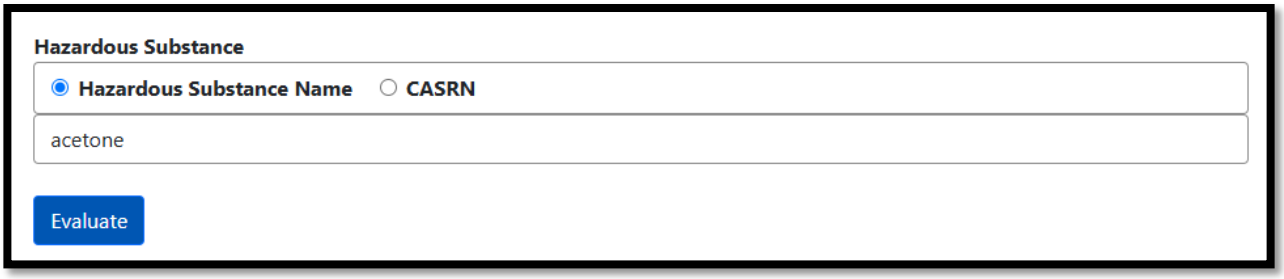
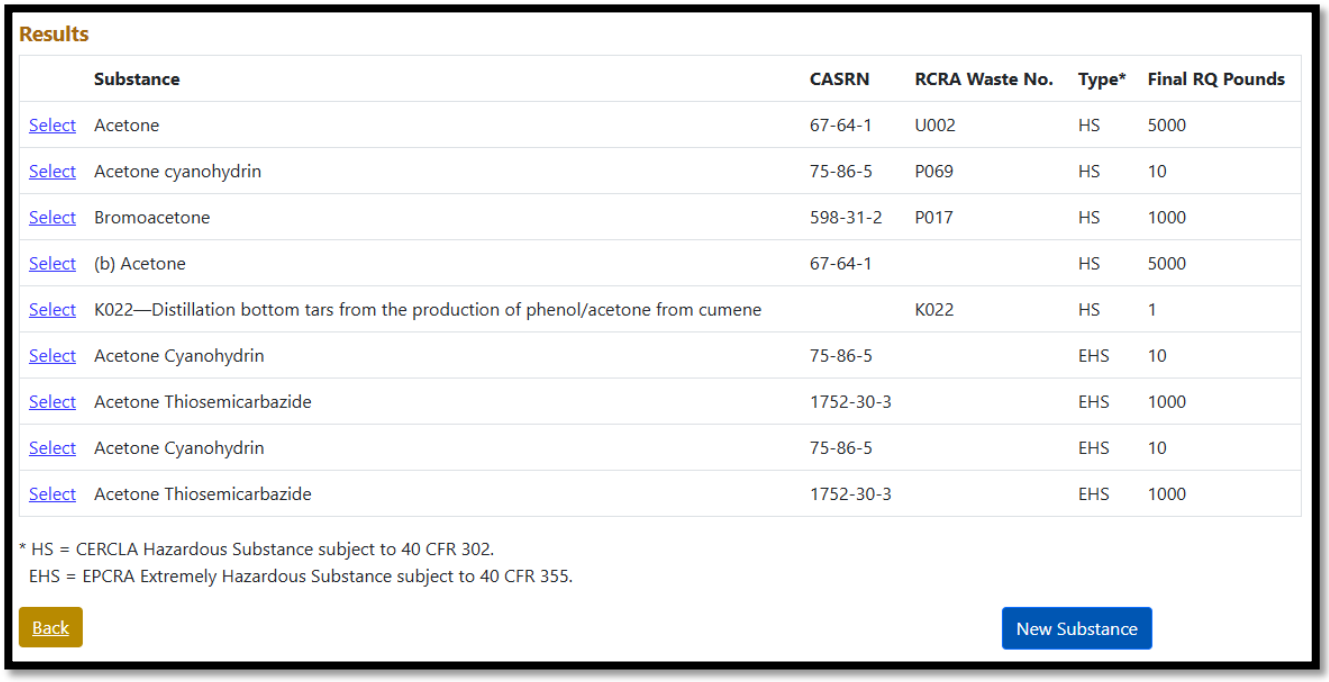


Figure 2

Step 3.
From the results that are provided, click the 'Select' link for the hazardous substance that is applicable (Figure 3).



Results

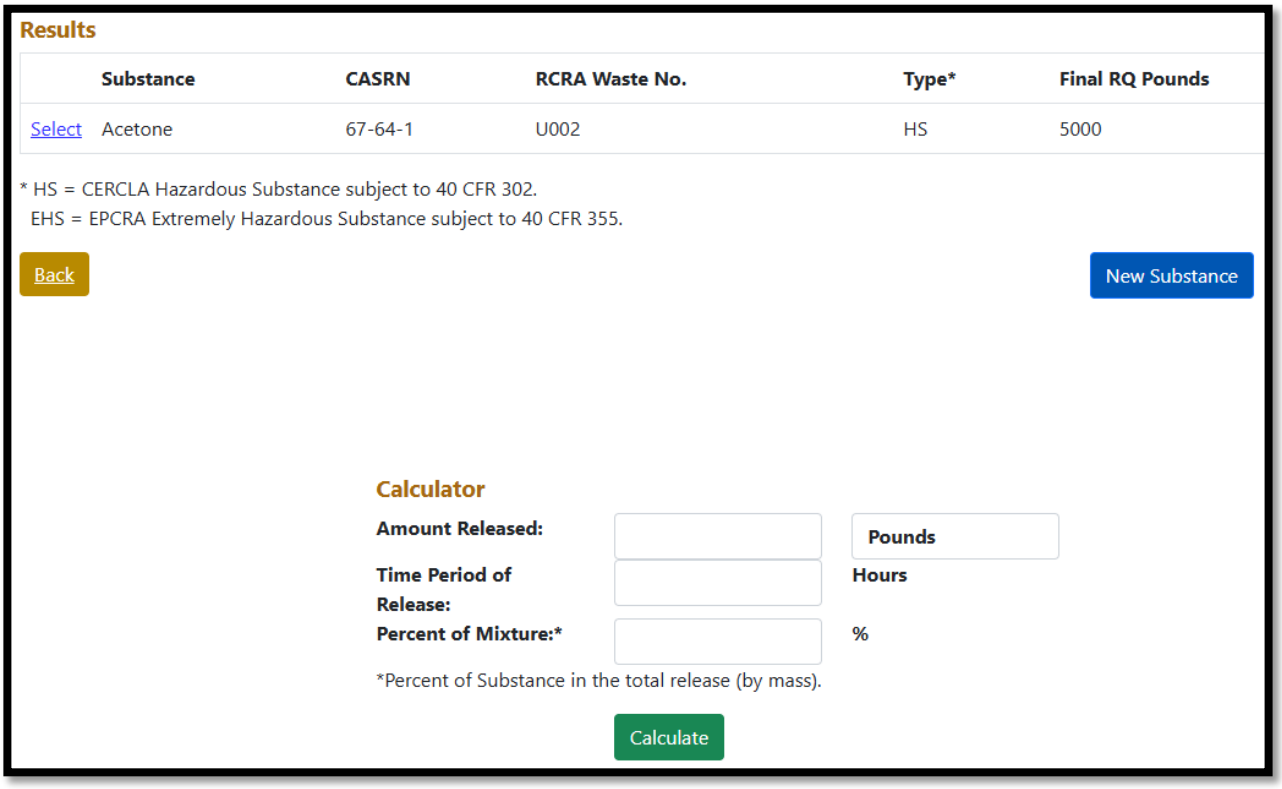
	Substance	CASRN	RCRA Waste No.	Type*	Final RQ Pounds
Select	Acetone	67-64-1	U002	HS	5000
Select	Acetone cyanohydrin	75-86-5	P069	HS	10
Select	Bromoacetone	598-31-2	P017	HS	1000
Select	(b) Acetone	67-64-1		HS	5000
Select	K022—Distillation bottom tars from the production of phenol/acetone from cumene		K022	HS	1
Select	Acetone Cyanohydrin	75-86-5		EHS	10
Select	Acetone Thiosemicarbazide	1752-30-3		EHS	1000
Select	Acetone Cyanohydrin	75-86-5		EHS	10
Select	Acetone Thiosemicarbazide	1752-30-3		EHS	1000

* HS = CERCLA Hazardous Substance subject to 40 CFR 302.
EHS = EPCRA Extremely Hazardous Substance subject to 40 CFR 355.

Back New Substance

Figure 3

Step 4.
After selecting the applicable hazardous substance, input the amount released, time period of release, and percent of mixture (i.e., percentage of a specific substance contained within a mixture); and then click the 'Calculate' button (Figure 4).



Results

	Substance	CASRN	RCRA Waste No.	Type*	Final RQ Pounds
Select	Acetone	67-64-1	U002	HS	5000

* HS = CERCLA Hazardous Substance subject to 40 CFR 302.
EHS = EPCRA Extremely Hazardous Substance subject to 40 CFR 355.

Back New Substance

Calculator

Amount Released: Pounds
Time Period of Release: Hours
Percent of Mixture:* %

*Percent of Substance in the total release (by mass).

Calculate

Figure 4

Step 5.
The calculator will then display if the amount released is reportable or not. If the amount is reportable, it will be shown in red (Figure 5) and if the amount is not reportable it will be shown in green (Figure 6).

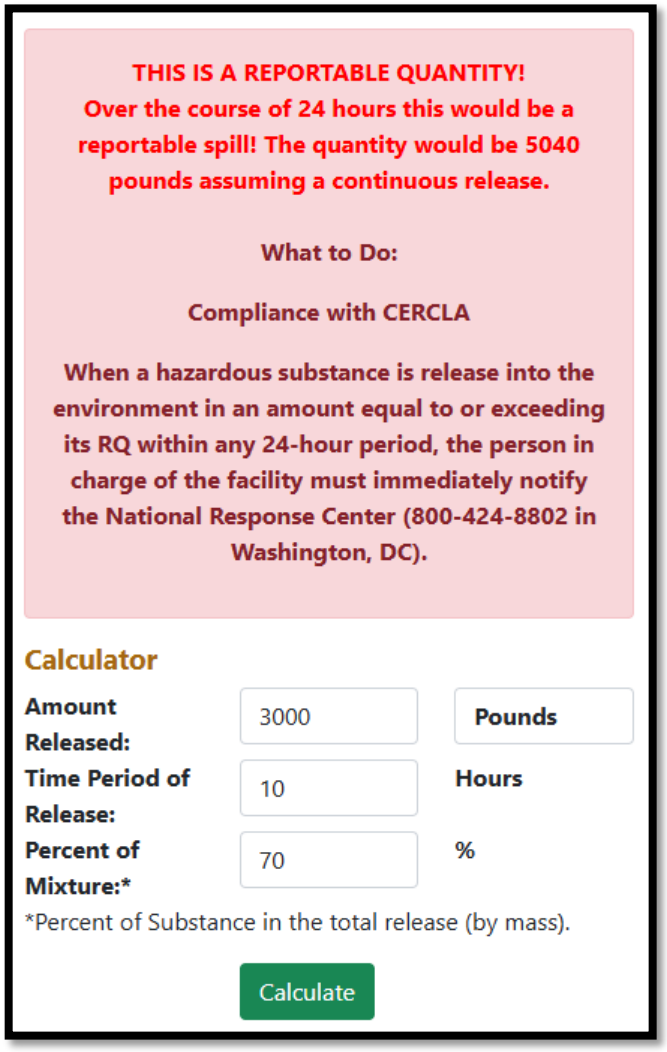


Figure 5 - Example of a release amount that exceeds the RQ

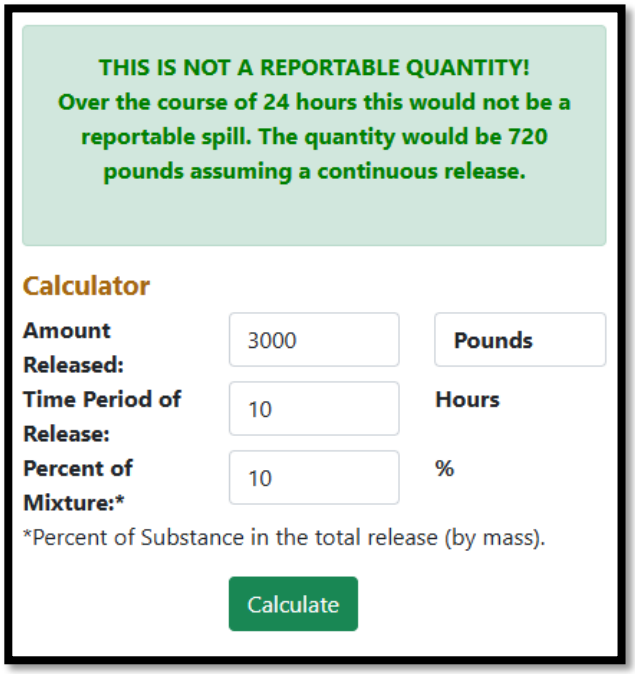


Figure 6 - Example of a release amount that does NOT exceed the RQ

Notification Requirements

When a hazardous substance is released to the environment within a 24-hour period in an amount that equals or exceeds its RQ, the person in charge of the facility must immediately notify the National Response Center. Contact information for the National Response Center can be found under the reporting tab in the RQ Calculator. Reporting may also be required under EPCRA to State, Local and Tribal entities; contacts for EPCRA reporting are also available on the reporting tab of the RQ Calculator.

For questions regarding this Information Brief, please contact:
Cate Berard (cate.berard@hq.doe.gov)
Office of Environment, Health, Safety and Security (EHSS)