

Encana's Responsible Products Program



What is Encana's Responsible Products Program?

Our Responsible Products Program is a risk-based product assessment and management program. All of the hydraulic fracturing fluid products we use are carefully assessed for their potential impact to human health or the environment using generally accepted toxicological criteria. The program's components include:

1. Collecting product data and information about the product mixture (primarily from Material Safety Data Sheets).
2. Assessing the products using our CAPP Responsible Product Assessment Tool.
3. Classifying the products into one of three categories.
4. Identifying and implementing any required operational practices and controls, to allow for the responsible use of the products or eliminating the products from use.

Overview

During hydraulic fracturing operations, fracturing fluids are pumped at high pressures through the wellbore and into the resource-bearing rock formation. While fracturing fluids are comprised primarily of sand and water, chemical additives (products) representing roughly 0.5 percent of the total volume are also injected into the well. Each product serves a specific, engineered purpose.

We use our Responsible Products Program to assess hydraulic fracturing fluids used in our operations for effectiveness and potential health, safety and environmental impacts.

Our Responsible Products Program helps ensure that the hydraulic fracturing fluid products we use in our operations are as safe, effective and as environmentally responsible as possible. The program categorizes the products we use based on their potential health and environmental impacts. After we have assessed a specific product, we are then able to make a decision as to whether that product is allowed to be used in our operations.

Encana prohibits the use of hydraulic fracturing fluid products containing diesel fuels, the heavy metals arsenic, cadmium, chromium, lead, and mercury, 2-Butoxyethanol (2-BE) or benzene, and we will inform our suppliers/vendors that any product containing these additives cannot be used in our hydraulic fracturing operations.



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Why has Encana created a Responsible Products Program?

We recognize that the impact of energy development is of concern to our stakeholders and we care about the impact energy development has on the public, our people, and the environment. While we have numerous measures in place to ensure the safe handling and use of fracturing fluids, we believe there is always room for improvement.

Our Responsible Products Program helps us reduce or mitigate the potential health and environmental impacts during hydraulic fracturing operations, address the concerns of our stakeholders and continuously improve our processes and controls.

How does the Responsible Products Program work?

After we collect the necessary information on a product, we assess it using our CAPP Responsible Product Assessment Tool. This tool allows us to effectively evaluate the products we use based on the potential health and environmental impacts.

To ensure that all of our product assessments are thorough, objective and accurate, we developed the Responsible Product Assessment Tool, in conjunction with a third party toxicology service provider and which has been endorsed by CAPP (Canadian Association of Petroleum Producers). This tool, which we now call the CAPP Responsible Product Assessment Tool uses government databases and information from Environment Canada, the European Union, the U.S. Environmental Protection Agency and the American Conference of Governmental Industrial Hygienists as the basis for its classification.

Once an assessment is complete, we are able to categorize products into one of three categories. These categories are then used to determine what, if any, additional operational practices and controls are required to protect the health of workers, the public or the environment during handling and use of these products.

Supplier Discussions and Product Information Disclosure

Through the Responsible Products Program, we are actively encouraging our suppliers to improve their public disclosure of fluid formulations. We also encourage fluid suppliers to continually advance the development of more responsible fluid additives.