

Oilfield Corrosion Inhibitors: EnvaCor®

Overview

Through our chemical product offerings and technologies, Ingevity seeks to purify, protect and enhance the world around us. Our Oilfield Technologies products are used in the well services sector during drilling and life cycle management of oilfield wells. These products aid in the safe, reliable, and cost-effective development of oil and natural gas resources worldwide.

Uses and applications

EnvaCor® product lines are typically used in oilfield and refinery applications as a component of corrosion inhibitor formulations, where it is often neutralized with organic acids. One primary application is in the preventative maintenance of metal used in drilling fluid and production systems. These corrosion inhibitors form a protective film over the exterior of metal to prevent deterioration of piping and other metal surfaces.

Ingevity imidazolines are used by qualified personnel at drilling and oil production sites around the world. These additives may constitute less than 5% of the total corrosion inhibitor formulation. When used in combination with acids, these additives produce stable and effective corrosion inhibitors, providing optimum protection and ensuring asset integrity in the oilfield industry.

Physical/chemical properties

Physical state: Liquid

Color: Dark brown to light amber

Odor: Amine-like

Health effects

EnvaCor® product lines may cause an allergic skin reaction and eye damage. Safety data sheets (SDS) are provided to communicate the specific hazards associated with products to ensure appropriate handling.

Environmental effects

As shown in the exposure and risk management sections below, great care is taken to prevent environmental impact during the manufacture and use of the product by our customers. EnvaCor® product line is considered a marine pollutant and deemed hazardous by the OSHA Hazard Communication Standard. Specific exposure risks can be reviewed on the SDS for each product.

Exposure and risk management recommendations

Products are used by qualified personnel in secure manufacturing environments and are typically stored and used in closed systems such as bulk transport (*e.g.* tank trucks or railcars), bulk storage (*e.g.* stationary tanks), packages (*e.g.* drums or tote bins), piping systems and process tanks. These products or their chemical derivatives are transported by Department of Transportation-compliant means, typically to well sites and drilling fluid production facilities for use. Used most commonly at concentrations below 5%, these additives are often used in conjunction with acids in corrosion inhibitor formulations.

To limit risk associated with human or environmental exposure, understand the hazards and risks associated with each product by reviewing the product SDS before use. Use engineering controls and personal protective equipment (PPE) that excludes exposure to the product where possible.

Use products in closed systems. Plan for spill containment and cleanup to include physical containment (*e.g.* diked areas, absorbent booms) and removal/disposal.

Conclusion

Under conditions of normal use by qualified personnel, EnvaCor® products, offered by Ingevity's Oilfield Technologies group, are not expected to pose a significant risk to human health or the environment.

No warranties of use or otherwise are expressly made or implied from this information. Final determination of suitability of any material is the sole responsibility of the user. All material may present unknown hazards and should be used with caution.