Diacid

Overview

Ingevity's Diacid product is a liquid dicarboxylic acid derived from fatty acids through an Ingevity developed process. It has three major application areas: metalworking fluids, surfactants and chemical intermediates.

Uses and applications

Diacid is an effective four-in-one product used in metalworking fluids where it functions as a coemulsifier, corrosion inhibitor, lubricity additive, and wetting agent. When used with nonionic and anionic surfactants, Diacid is also an effective coupling agent. As an intermediate chemical, Diacid forms high solid, low viscosity soaps, reducing transportation and handling costs for industrial companies. Typical applications include metalworking fluids and soaps and detergents.

Physical/chemical properties

Physical state:	Liquid.
Color:	Amber.
Odor:	Bland.
Flash point:	229°C (closed cup).
Explosive properties:	Non-explosive.

Health effects

The information contained in the table below may be useful to someone handling the concentrated substance such as a manufacturer or transporter. Consumers are not likely to come in contact with the concentrated substance. The data, while verifiable, are not intended to be comprehensive nor replace the data found in the safety data sheet (SDS).

Effect Assessment	Result
Acute Toxicity	Virtually nontoxic
Eye Irritation	Causes serious eye damage
Skin Irritation	Causes skin irritation

Environmental effects

The information contained in the table below is intended to provide brief and general information of this product's environmental impact.

Effect Assessment	Result
Aquatic Toxicity	Acute toxicity data are available for fish, crustacea and algae and all E(L) C50 values are > 10 mg/l and < 100 mg/l.
Degradability	Readily biodegradable

Bioaccumulation potential	Potentially Bioaccumulative

Exposure and risk management recommendations

Workplace exposure: The following risk management measures (RMMs) are required to work safely with the corrosive substance Diacid, based on its moderate hazard.

General measures: Containment as appropriate; minimize number of staff exposed; segregation of the emitting process; effective contaminant extraction; good standard of general ventilation; minimization of manual phases; avoidance of contact with contaminated tools and objects; regular cleaning of equipment and work area; management/supervision in place to check that the RMMs in place are being used correctly and operating conditions followed; training for staff on good practice; good standard of personal hygiene.

Personal protective equipment: Substance/task appropriate gloves; skin coverage with appropriate barrier material based on potential for contact with the chemicals; substance/task appropriate respirator; optional face shield; eye protection. Appropriate PPE is documented in the relevant sections of the safety data sheet.

Consumer exposure: Diacid is used in many industries such as metalworking fluids. The concentration of Diacid in consumer products is generally low. However, carefully read and follow the instructions given on product labels for proper use.

Environmental exposure: Diacid is readily biodegradable and will therefore be degraded within the wastewater treatment process. Though the substance is classified as acutely toxic to aquatic organisms, a risk for the environment is not identified since exposure of surface waters is expected to be negligible due to the rapid degradation. Further, Diacid does not accumulate in the food chain. Conclusively, all identified uses are safe for the environment based on the scientific facts summarized above and when carried out in compliance with recommended risk management measures and applicable regulations.

Conclusion

Under conditions of normal use by qualified personnel, Ingevity's Diacid products are not expected to pose a significant risk to human health or the environment.