

Propionic acid

Maritime Chemical Accident

1975, January Shores of the Swedish West Coast, about 100 km north of Gothenburg

Propionic acid (Class 8) in drums; corrosive liquid that emits irritating and harmful vapours; VP 1.3 kPa (20°C), TLV 10 ppm (USA)

Summary: On several occasions around January 8-10, 1975, approximately 30 drums of **propionic acid** were found on different positions on shores of the Swedish West Coast about 100 km north of Gothenburg. Propionic acid is an organic acid used for fabrication of many different products like preservatives, flavours and perfume bases. Before salvage, the drums were carefully examined by the Coast Guard for any ruptures and leaks. The drums were then very cautiously salvaged from the shores and lifted on board Coast Guard cutters. It was not possible to judge how long time the drums had been moved by the sea and exposed to marine water. However, the drums were very rusty and were lacking labels, placards and inscriptions. After sampling and subsequent chemical analysis in a laboratory, the content was identified as propionic acid. The drums were taken to a temporary store until further transport to a disposal plant.

Cause of Accident: Probably lost deck cargo.

Comments on Response: Besides ordinary working-clothes, the response personnel wore only gloves and rubber boots as safety protection garments when salvaging the drums. Being aware of the nature of the chemical (corrosive liquid and fumes), the personnel should have worn full body protection. After salvage from the shore, the drums should immediately have been placed in **overpacks**. The incident was only recorded very briefly in a log-book. A full detailed report should have been written, with an evaluation of the response operation and notes on the response failures.

Source of Information: Swedish Coast Guard log-book notes and short articles in a local newspaper.

(Abstracted April 1991 by Björn Looström, Swedish Coast Guard H.Q.)