

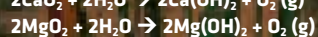
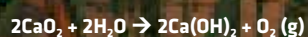


**SOLVAY**

asking more from chemistry®

# Soil remediation

IXPER® products offered by Solvay include IXPER® 60C and 75C Calcium Peroxide, and IXPER® 35M Magnesium Peroxide. These inorganic peroxides, with very slight solubility, in the presence of water at their natural pHs, decompose to release oxygen and heat as follows:



The applications of IXPER® products are based on their ability to generate a combination of oxygen and hydrogen peroxide under various conditions.

Application  
Data Sheet

IXPER®  
Products

# Soil remediation

IXPER<sup>®</sup> C finds large application in soil bioremediation as an effective source of oxygen. In enhanced aerobic bioremediation, the ability of aerobic microbes to biologically degrade contaminants can be limited by inadequate levels of oxygen: IXPER<sup>®</sup> C due to its low solubility in water, ensures adequate source of oxygen over an extended period of time.

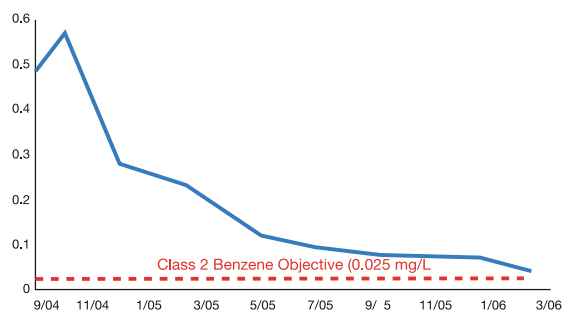
The compounds that can be aerobically degraded include: benzene, toluene, ethylbenzene, and xylene (BTEX), methyl tertiary butyl ether

(MTBE), total petroleum hydrocarbons (TPH), non-halogenated volatile solvents and some halogenated compounds such as vinyl chloride. In particular, IXPER<sup>®</sup> 75C is a high quality calcium peroxide powder most likely used for soil remediation and groundwater treatment, that can be injected as a slurry into a contaminated soil or aquifer to support enhanced aerobic microbial activity.

IXPER<sup>®</sup> 70CG, the granular high quality calcium peroxide product supplied by Solvay, found important application for dispersion in excavations.

The following graphs of benzene concentrations in some monitoring wells prior to injection through 17 months of monitoring illustrate the rapid degradation of benzene resulting from the introduction of IXPER<sup>®</sup> 75C Calcium Peroxide to promote enhanced aerobic bioremediation.

**MW-4-Benzene Concentration (mg/L)**



**MW-13-Benzene Concentration (mg/L)**

