

Title (en)  
Enzyme-containing liquid detergents.

Title (de)  
Enzymhaltige, flüssige Waschmittel.

Title (fr)  
Produit détergents liquides contenant un enzyme.

Publication  
**EP 0348183 A2 19891227 (EN)**

Application  
**EP 89306277 A 19890622**

Priority  
US 21047488 A 19880623

Abstract (en)  
A heavy duty, enzyme-containing, aqueous liquid detergent. The detergent includes surfactants, enzymes and an enzyme-stabilizing system. The detergent has a neat liquid pH of 9.5 or greater, a solution pH of 8.5 or greater at 0.2% weight use level and a titratable alkalinity of at least 0.5% weight per gram of product when expressed as % Na<sub>2</sub>O as measured to pH 7.

IPC 1-7  
**C11D 3/386**

IPC 8 full level  
**C11D 3/02** (2006.01); **C11D 3/20** (2006.01); **C11D 3/30** (2006.01); **C11D 3/386** (2006.01); **C11D 17/08** (2006.01)

CPC (source: EP US)  
**C11D 3/046** (2013.01 - EP US); **C11D 3/2044** (2013.01 - EP US); **C11D 3/2065** (2013.01 - EP US); **C11D 3/30** (2013.01 - EP US); **C11D 3/38663** (2013.01 - EP US)

Cited by  
EP1081215A1; EP0381262A3; US5089163A; US5281277A; EP0886547A4; US9353334B2; US7723281B1; WO9813462A1; WO0129166A1; WO0202727A1; WO2021067407A1; US6624132B1; US7553806B2; US7795199B2; US7951767B2; US8211849B2; EP0817613B1; WO2015176221A1

Designated contracting state (EPC)  
CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)  
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DOCDB simple family (application)  
**EP 89306277 A 19890622**; AU 3667189 A 19890620; BR 8903088 A 19890623; JP 16250889 A 19890623; US 47064395 A 19950606; ZA 894785 A 19890623