

KLOZUR® PERSULFATE ACTIVATION GUIDE

Selection Guide:

- ✓ Recommended, lab or field data available demonstrating success
- Recommended, no available lab or field data
- Ø Not recommended

▼ Contaminant	Activator ►	KLOZUR® ONE and Fe-Chelate	Alkaline	Hydrogen Peroxide	Heat
CHLORINATED SOLVENTS					
Tetrachloroethene (PCE)		✓	✓	✓	✓
Trichloroethene (TCE)		✓	✓	✓	✓
Dichloroethene (cis and trans DCE)		✓	✓	✓	✓
Trichloroethane (TCA)		Ø	✓	✓	✓
Dichloroethane (DCA)		Ø	✓	■	✓
Carbon tetrachloride		Ø	✓	✓	✓
Chloroethane		Ø	■	■	✓
Chloroform		Ø	✓	✓	✓
Chloromethane		Ø	■	■	✓
Chlorotoluene		■	■	■	✓
Methylene chloride		Ø	✓	✓	✓
Vinyl chloride		Ø	✓	✓	✓
Dichloropropane		Ø	■	■	✓
Dichloropropene		Ø	■	■	✓
Hexachlorobutadiene		Ø	■	■	✓
Tetrachloroethane		Ø	■	✓	■
Trichloropropane		Ø	■	■	✓
BTEX					
Benzene		✓	✓	✓	✓
Toluene		✓	✓	✓	✓
Ethylbenzene		✓	✓	✓	✓
Xylenes		✓	✓	✓	✓

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PAHS					
Acenaphthene		✓	✓	■	✓
Acenaphthylene		✓	✓	■	✓
Anthracene		■	✓	■	■
Benzo(a)anthracene		■	✓	■	■
Benzo(a)pyrene		■	✓	■	■
Benzo(b)fluoranthene		■	✓	■	■
Benzo(ghi)perylene		■	✓	■	■
Bis(2-ethylhexyl)phthalate		■	✓	■	■
n-butylbenzene		✓	■	■	✓
Chrysene		■	✓	■	■
Dibenzo(ah)anthracene		■	✓	■	■
Fluorene		✓	✓	■	✓
Naphthalene		✓	✓	■	✓
Nitrobenzene		∅	∅	✓	✓
Phenathrene		✓	✓	✓	✓
Propylbenzene		✓	✓	✓	✓
4-iso-propyltoluene		✓	✓	✓	✓
Pyrene		■	✓	■	■
Styrene		✓	✓	✓	✓
Trimethylbenzene		✓	✓	✓	✓
OXYGENATES					
Methyl tert-butyl ether (MTBE)		✓	✓	✓	✓
Tert-butyl alcohol (TBA)		✓	✓	✓	✓
PETROLEUM HYDROCARBONS					
GRO (octane)		∅	✓	✓	■
DRO (dodecane)		∅	✓	✓	■
ORO (C20 alkane)		∅	✓	✓	■
Creosote (coal tar)		✓	✓	■	■

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CHLOROBENZENES					
Chlorobenzene		✓	✓	■	✓
Dichlorobenzene		✓	✓	■	✓
Trichlorobenzene		Ø	✓	■	✓
PHENOLS					
Phenol		■	■	■	✓
4-chloro-3-methyl phenol		■	■	■	✓
2-chlorophenol		■	■	■	✓
2,4-dichlorophenol		■	■	■	✓
2,4-dinitrophenol		■	■	■	✓
4-nitrophenol		■	■	■	✓
Pentachlorophenol		■	■	■	✓
FLUORINATED COMPOUNDS					
Dichlorodifluoromethane (Freon 12)		Ø	✓	■	✓
Trichlorofluoromethane (Freon 11)		Ø	✓	■	✓
Trichlorotrifluoroethane (Freon 113)		Ø	✓	■	✓
PFCA/PFOA		■	Ø	Ø	✓
PESTICIDES/HERBICIDES					
α-Chlordane		Ø	✓	■	✓
DDD		Ø	✓	■	✓
DDE		Ø	✓	■	✓
DDT		Ø	✓	■	✓
Heptachlor Epoxide		Ø	✓	■	✓
Lindane (hexachlorocyclohexane)		✓	✓	✓	✓
Bromoxynil		■	■	✓	■
MCPA		■	■	✓	■

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MISCELLANEOUS					
Acetone		■	✓	✓	✓
4-methyl-2-pentanone		✓	■	■	✓
1,4-dioxane		✓	✓	✓	✓
BCEE		∅	✓	✓	✓
BCEM		∅	✓	✓	✓
Perchlorate		∅	∅	∅	∅
Polychlorinated biphenyls (PCBs)		∅	✓	■	✓
Aniline		✓	■	■	■
Chloroaniline		✓	■	■	■
TNT		✓	✓	■	✓
DNT		✓	✓	■	✓

The KLOZUR® Activator Selection Guide is for guidance only regarding which contaminants can be treated by Evonik's patented activation methods. It is recommended that a suitable treatability study be performed to verify applicability to your specific contaminant and site conditions. For more information and to discuss which KLOZUR® product and activation method would be best suited to your site, please contact your local Evonik Technical Sales Manager.

1. A limited use license is included with the purchase of KLOZUR® Persulfate for Evonik's suite of national and international patents for the in situ activation of persulfate to remediate environmental contaminants of concern including, but not limited to US 7,785,038, US 7,524,141, US 7,576,254, and 7,473,372.

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