

Human Health and Environmental Fact Sheet

Disclaimer: The information presented in this fact sheet was compiled from information from flame retardants manufacturers and public data sources. The authors cannot be held liable for factual errors. For latest information on substance testing, classification and labelling as well as regulatory status please contact the individual manufacturers and refer to their latest safety data sheet applicable in your country or region.

Product name	APYRAL AOH	
Synonyms	Boehmite, Aluminium Oxide Hydroxide	
CAS no.	1318-23-6	
Molecular Structure	AlHO ₂	
Mw	59,96 g/mole	
Mf		
Physical form	solid	
Use	Flame retardant, additive	
PBT/vPvB EVALUATION		
	Conclusion	Comments
Persistent or very Persistent	Yes No x	Not applicable for inorganic substance
Bioaccumulative or very bioaccumulative	Yes No x	<i>Boehmite is not expected to be bioaccumulative</i>
Ecotoxicity	Yes No x	<i>The low water solubility indicates that Boehmite will be relatively immobile in the environment. Boehmite is a mineral found naturally in the environment.</i>
HUMAN HEALTH		
	Result	Comments
Acute toxicity		
Acute toxicity (LD ₅₀)	>5000 mg/kg bw	IUCLID 2000 OECD 401
Eye irritation	Yes No x	IUCLID 2000 OECD 405
Skin irritation	Yes No x	IUCLID 2000 OECD 404
Sensitization	Yes No x	IUCLID 2000 EPA FIFRA 81-6
Chronic toxicity		
Carcinogenicity (NOAEL)	No effect	IUCLID 2000 <i>Experimental studies and structure-activity relationships indicate that Boehmite is of low concern for carcinogenicity.</i>
Reprotoxicity (NOAEL)	No data	<i>Boehmite is estimated to be of low hazard for reproductive effects based on professional judgment and comparison to</i>

		<i>analogous aluminum compounds.</i>
Genotoxicity	No data	<i>Boehmite is estimated to be of low hazard for genotoxicity based on professional judgment and comparison to analogous aluminum compounds.</i>
Endocrine disruption	No data	<i>Boehmite is estimated to be of low hazard for endocrine disruption based on professional judgment and comparison to analogous aluminum compounds.</i>

ENVIRONMENT		
Degradation		<i>As a fully oxidized inorganic material, Boehmite is not expected to biodegrade, oxidize in air, or undergo hydrolysis under environmental conditions.</i>
Half life in water (fresh or marine)		days Not applicable
Half life in sediment (fresh or marine)		days Not applicable
Half life in soil		days Not applicable
Readily biodegradable	Yes No	Not applicable
Inherently biodegradable	Yes No	Not applicable
Sewage treatment removal		% Not applicable
Bioaccumulation		<i>Boehmite is not expected to be bioaccumulative.</i>
BCF (log)		Not applicable
Log K _{ow}		Not applicable
Eco-toxicity		<i>Because of the very low water solubility Boehmite is not expected to be eco-toxic</i>
Acute toxicity for fish,	No data	--
Acute toxicity for invertebrate, Daphnia	>100 mg/liter	OECD 202 I
Acute toxicity for algae	>100 mg/liter	OECD 201
Physical properties		
Vapour pressure at 25 °C	at 20 deg. C	Not applicable
Solubility in water at 25 °C	Not soluble	IUCLID 2000
Soil Adsorption coefficient, K _{oc}		Not applicable
Henry's law constant (atm-m ³ /mole)		Not applicable
Hydrolysis (half life) in water	days	Not applicable
RISK PHRASES		
	Applies following Directive EC/67/548	Comments
R40	Yes No x	
R42	Yes No x	

R43	Yes No x	
R45	Yes No x	
R49	Yes No x	
R50	Yes No x	
R53	Yes No x	

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