

## Environmental Impacts of Pergafast 201<sup>1,2</sup>

Washington Ecology has identified Pergafast 201 as a suitable replacement for BPS as a developer in the production of thermal paper. Based on information that is currently available, Ecology's recommendation of Pergafast 201 seems to be sending mixed signals regarding protection of aquatic organisms and sensitive aquatic populations. As noted in the attached Table, available studies classify the substance as a high hazard designation for aquatic toxicity endpoints and as a very high hazard for persistence in the environment.

- Major U.S. producers of thermal papers have chosen not to use Pergafast 201 due to its acute and chronic aquatic toxicity and associated potential long-term effects.
- Indicators identify it as toxic to aquatic organisms and it may cause long-term adverse effects in the aquatic environment.
- Once released into the environment, Pergafast's environmental fate is classified as persistent meaning it is not easily degraded and removed from the environment by either chemical degradation processes or by biodegradation.
- With the current debate involving PFAS chemistry, emerging contaminants are a focus of concern. Using Pergafast 201 in a manufacturing process may result in significant long term environmental harm due to its persistence in the environment and its recognized aquatic toxicity. Even use of this material on a short-term basis could create long lasting environmental legacy issues for manufacturers.

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<sup>1</sup> U.S. EPA *Bisphenol A (BPA) Alternatives in Thermal Paper*, Table ES-1

<sup>2</sup> BASF Safety Data Sheet for Pergafast<sup>®</sup> 201 Revision date:2017/04/27

## U.S. EPA Screening Level Toxicology Hazard Summary<sup>3</sup>

### Comparison of Bisphenol S and Pergafast 201

VL=Very Low Hazard

L=Low Hazard

M= Moderate Hazard

H= High Hazard

VH = Very High Hazard

Chemical	CASRN	Human Health Effects											Aquatic Toxicity		Environmental Fate	
		Acute Toxicity	Carcinogenicity	Genotoxicity	Reproductive	Developmental	Neurological	Repeated Dose	Skin Sensitization	Respiratory Sensitization	Eye Irritation	Dermal Irritation	Acute	Chronic	Persistence	Bioaccumulation
<b>Bisphenol S</b>	80-09-1	L	M	M	M	M	M	H	L		L	L	M	M	M	L
<b>Pergafast 201</b>	232938-43-1	L	M	L	M	M	L	M	L		L	VL	H	H	VH	L

<sup>3</sup> U.S. EPA *Bisphenol A (BPA) Alternatives in Thermal Paper*