



Cradle to Cradle® Certification Chemical Evaluation Criteria

Criterion	Possible Sources	Green	Yellow	Red
Carcinogenicity	MAK, IARC, ACGIH, NTP, EPA	Not known or suspected of being a carcinogen; Negative Prokaryotic assays in the absence of Eukaryotic	Not classifiable as a human carcinogen	Known or suspected Carcinogen
Disruption of Endocrine System	Published lists (e.g. Colborn list, EU list, etc) and Peer Reviewed research reports	Not known or suspected of being an Endocrine Disruptor		Listed as a known/suspected endocrine disruptor supported by peer reviewed science
Mutagenicity	Peer reviewed test data (e.g. NTP, CCRIS, GENETOX)	Product has been tested and is not mutagenic to eukaryotes	Negative Ames or prokaryotic assays only	Positive Eukaryotic mutagenicity tests
Reproductive Toxicity	Peer reviewed test data, CA 65 list, MAK	Not known or suspected of being a reproductive toxin		Substance has positive test results or is listed as a reproductive toxin
Teratogenicity	Peer reviewed test data, MAK list, CA 65 list	Not known or suspected of being a Teratogen	Not teratogenic as long as MAK value is observed, equivocal teratogenicity data	Positive teratogenic test results or listed as a known or suspected teratogen.
Acute Toxicity	MSDS, RTECS, NLM, IUCLID	Oral/Dermal LD50 > 2000 mg/kg Inhal. LC50 (4H) > 4,000 mg/m ³	2000 mg/kg > Oral/Dermal LD50 > 200 mg/kg 4000 mg/m ³ > Inhal. LC50 (4H) > 400 mg/m ³	Oral/Dermal LD50 < 200 mg/kg Inhal. LC50 (4H) < 400 mg/m ³
Chronic Toxicity	Peer reviewed studies	NOAEL > 100 mg/kg; low chronic toxicity	Moderate chronic toxicity	High chronic toxicity
Sensitization	MAK list, NLM, MSDS, BGVV list, Peer reviewed studies	Not sensitizing to skin or airways (either proven via experience or test)	Equivocal sensitization data	Listed as a skin or airway sensitizer or has tested positive in sensitization test(s)
Irritation of Skin/ Mucous Membranes	RTECS, MSDS, EU Risk Phrases	Mild or no irritation	Mild to moderate irritation	Severe irritation, risk of severe burns or serious damage to eyes
Other (carrier function, skin penetration potential, etc)				

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Vertebrate Toxicity (fish)	EPA ECO-TOX, MSDS, HSDB, QSAR data	96H LC50 > 100 mg/L QSAR 96H LC50 > 100 mg/L	100 mg/L > 96H LC50 > 10 mg/L 100 mg/L > QSAR 96H LC50 > 1 mg/L	96H LC50 < 10 mg/L QSAR 96H LC50 < 1 mg/L
Invertebrate Toxicity (daphnia)	EPA ECO-TOX, MSDS, HSDB, QSAR data	96H LC50 > 100 mg/L QSAR 96H LC50 > 100 mg/L	100 mg/L > 96H LC50 > 10 mg/L 100 mg/L > QSAR 96H LC50 > 1 mg/L	96H LC50 < 10 mg/L QSAR 96H LC50 < 1 mg/L
Aquatic Plant Toxicity (algae)	EPA ECO-TOX, MSDS, HSDB, QSAR data	96H LC50 > 100 mg/L QSAR 96H LC50 > 100 mg/L	100 mg/L > 96H LC50 > 10 mg/L 100 mg/L > QSAR 96H LC50 > 1 mg/L	96H LC50 < 10 mg/L QSAR 96H LC50 < 1 mg/L
Persistence/ Biodegradation	MSDS, HSDB, Peer reviewed test data, QSAR	T(1/2) < 30/90 days water/soil/sediment Readily Biodegradable (based on OECD tests)	30/90 days < T(1/2) < 60/180 days air/soil Ultimately Biodegradable but not readily	T(1/2) > 60/180 days water/soil Not biodegradable/recalcitrant
Bioaccumulation	MSDS, HSDB, Peer reviewed test data, QSAR	BCF < 100	100 < BCF < 1000	BCF > 1000
Contents of Halogenated Organics	Chemical Structure databases	Organohalogen content < 0.01%		Organohalogen content >= 0.01%
Metal Content	Chemical Structure databases	Toxic Metal content < 0.01%		Toxic Metal Content >= 0.01%
Climate Relevance / Ozone Depletion	EPA lists of ODP and GWP	Not a listed class 1 or 2 ozone depletor		Listed as a class 1 or 2 ozone depletor
Other				