

PRODUCT	ACTIVE INGREDIENT	EPA TOXICITY CATEGORY for ACTIVE (See last column for end product toxicity)	EPA FIELD STUDIES & USDA LAB STUDIES* LENGTH OF PROTECTION AGAINST MOSQUITOES	FLAMMABLE (must not go near a fire when wearing it)	Type of Formulation with EPA TOXICITY CATEGORY for END FORMULA
Sawyer Picaridin	Active ingredient Picaridin 20%	Picaridin is derived from pepper. Picaridin is Category IV for acute inhalation toxicity and primary dermal irritation and Toxicity Category III for acute oral, acute dermal and primary eye irritation. It is not a dermal sensitizer.	EPA: 8	YES	Ethanol formula CATEGORY III
Ben's 30% Deet Tick & Insect Wilderness Formula	Active ingredient DEET 30%	DEET is slightly toxic by the eye, dermal and oral routes and has been placed in Toxicity Category III for these effects. Adverse human effects, including skin hypersensitivity and eye irritations have been reported. Generalized seizures have been temporally associated with the use of DEET insect repellent on skin.	EPA: 2	YES	Water, Dipropylene glycol Monomethyl Ether, Propylene Glycol CATEGORY II
Repel Lemon Eucalyptus	Oil of Lemon Eucalyptus 30% (Approx. 65% p-menthane-3,8 diol)	P-Menthane-3,8-diol (PMD) is a biochemical pesticide derived from eucalyptus plants. It is a chemically synthesized version of oil of lemon eucalyptus. PMD is classified as Toxicity Category I for the technical product and Category II for the end-use product.	EPA: 6 CR: 7 Aedes CR: 8 Culex	YES	Ethanol based formula CATEGORY II
Repel Scented Family	Active ingredient DEET 15%	DEET is slightly toxic by the eye, dermal and oral routes and has been placed in Toxicity Category III for these effects. Adverse human effects, including skin hypersensitivity and eye irritations have been reported. Generalized seizures have been temporally associated with the use of DEET insect repellent on skin.	EPA:*Company chose not to have a specific time associated with their product CR: 5 Aedes CR: 8 Culex	YES	Ethanol and Isobutane CATEGORY II
Natrapel 8 Hour	Active ingredient Picaridin 20%	Picaridin is derived from pepper. Picaridin is Category IV for acute inhalation toxicity and primary dermal irritation and Toxicity Category III for acute oral, acute dermal and primary eye irritation. It is not a dermal sensitizer.	EPA: 8 CR: 8 Aedes CR: 8 Culex	YES	Water, Ethyl alcohol, Polyethylene Glycol 400 CATEGORY III
Off! Deepwoods VII	Active ingredient DEET 25%	DEET is slightly toxic by the eye, dermal and oral routes and has been placed in Toxicity Category III for these effects. Adverse human effects, including skin hypersensitivity and eye irritations have been reported. Generalized seizures have been temporally associated	EPA: 8 CR: 8 Aedes CR: 8 Culex	YES	Propane, Isobutane, ethanol, water and other CATEGORY II

		with the use of DEET insect repellent on skin.			
Coleman Skinsmart	Active ingredient IR3535 20%	3-[N-Butyl-N-acetyl]-aminopropionic acid, ethyl ester. Structurally related to β -alanine, which occurs naturally	EPA: 8 CR: 3 Aedes CR: 6 Culex	YES	Denatured Alcohol, WATER, 3-[N-Butyl-N-acetyl]-aminopropionic acid, ethyl ester, POLYETHYLENE GLYCOL 400 CATEGORY II
Avon Skin So-Soft Bug Guard plus Picaridin	Active ingredient Picaridin 10%	Picaridin is derived from pepper. Picaridin is Category IV for acute inhalation toxicity and primary dermal irritation and Toxicity Category III for acute oral, acute dermal and primary eye irritation. It is not a dermal sensitizer.	EPA: 6 CR: 3 Aedes CR: 8 Culex	YES	SD Alcohol CNS (denatured with depressant Bitrex® [denatonium benzoate]) Isobutane, Propane CATEGORY II
Cutter Skinsations	Active Ingredient DEET 7.0%	DEET is slightly toxic by the eye, dermal and oral routes and has been placed in Toxicity Category III for these effects. Adverse human effects, including skin hypersensitivity and eye irritations have been reported. Generalized seizures have been temporally associated with the use of DEET insect repellent on skin.	EPA* Company chose not to have a specific time associated with their product CR: 1 Aedes CR: 3 Culex	YES	SDA-40 Ethanol CATEGORY II
HOMS Biteblocker BioUD	Active ingredient 2-Undecanone 7.75%	2-Undecanone comes from a natural source: Essential oil from leaves and stem of wild tomato plant, Lycopersicon hirsutum. Natural formula.	EPA: 5 CR: 3 Aedes CR: 3.5 Culex	NO	Water based emulsion, no alcohol or flammable toxic materials. CATEGORY IV (safest EPA category)
Bite Blocker Extreme (Soy based)	Active ingredients: Soybean Oil 3%, Geranium Oil 6%, Castor Oil 8%	Bite Blocker shown to be leading natural formula in terms of effectiveness by USDA and previous Consumer Reports testing 2013 and priors.	USDA: 7.2 overall USDA: 5.5 Aedes USDA: 8.3 Culex CR (2013): 3 Aedes CR (2013): 8+ Culex	NO	EPA: EXEMPT
Burts Bees Herbal	Active ingredients: Castor oil 10%, Rosemary oil 3.77%, lemongrass oil 2.83%, cedar oil 0.94%, peppermint oil 0.76%, Citronella oil 0.57%, clove oil 0.38%, geranium oil 0.19%		No EPA or USDA, other data shows slightly effective (<2 hours) CR: 1 Aedes CR: 1.5 Culex		EPA: EXEMPT
Cutter Naturals	Active ingredients: Geraniol 5%, Soybean oil 2%, Sodium Lauryl Sulfate 0.4%, Potassium Sorbate 0.1%.		No EPA or USDA, other data shows ineffective (<1 hour) CR: 1 Aedes CR: 0.5 Culex		EPA: EXEMPT

All Terrain Kid's Herbal Armor	Active ingredients: Oil of Soybean 11.5%, Oil of Citronella 10.0%, Oil of Peppermint 2.0%, Oil of Cedar 1.50%, Oil of Lemongrass 1.00%, Oil of Geranium 0.05%		No EPA or USDA, other data shows ineffective (<1 hour) CR: 0.5 Aedes CR: 1 Culex		EPA: EXEMPT
California Baby Natural Bug Blend	6% Active ingredients: Pure essential oils of *cymbopogon nardus (citronella) 5%, *cymbopogon schoenanthus (lemongrass) .5%, *cedrus atlantica (cedar) .5%.		No EPA or USDA, other data shows ineffective (<1 hour) CR: 0.5 Aedes CR: 0.5 Culex		EPA: EXEMPT
Off! FamilyCare II Clean Feel	Picaridin 5%	Picaridin is derived from pepper. Picaridin is Category IV for acute inhalation toxicity and primary dermal irritation and Toxicity Category III for acute oral, acute dermal and primary eye irritation. It is not a dermal sensitizer.	EPA: 2 CR: 0.5 Aedes CR: 1 Culex	YES	Water, Ethanol based formula Category III
EcoSmart Organic	Rosemary Oil 0.5%, Cinnamon Leaf Oil 0.5%, Lemongrass Oil 0.5%, Geraniol 1.0%		No EPA or USDA, other data shows ineffective (<1 hour) CR: 0.5 Aedes CR: 0.5 Culex		EPA: EXEMPT

Sources: EPA, National Institute of Health

National Pesticide Information Center,

Beyond Pesticides/National Coalition Against the Misuse of Pesticides