

Shark Repellent Aerosol Canister SD-1

For rescue and recovery:

- Reduces shark interactions
- Manual or water-activated trigger release
- Environmentally compliant
- Less than 60 second ejection time
- Up to a 15 minute protection window
- Also deploys water-marking dyes

Our aerosol canisters are a convenient way to deploy chemical shark repellent or water-soluble dyes on-demand. We offer two options for actuating the canister: An automatic water-activated trigger (shown at left), and a one-click manual trigger (shown at right) on our aluminum 6 fl. oz. canister:



Deployable from aircraft



Deployable from vessels



Deployable from shore



Our standard steel 8 fl. Oz. canister contains 6 fl. Oz of repellent or dye, and can contents are ejected within 60 seconds.

Any steel or aluminum aerosol canister with a 1" crown can be filled for your requirements.



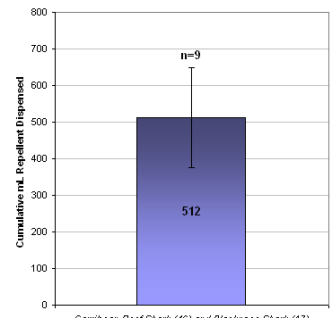
SDT recommends the deployment of four (4) cans simultaneously over the rescue area. This creates a protective zone at the surface. At left, four cans are easily stored in a Pelican case.

Shark Repellent Technology

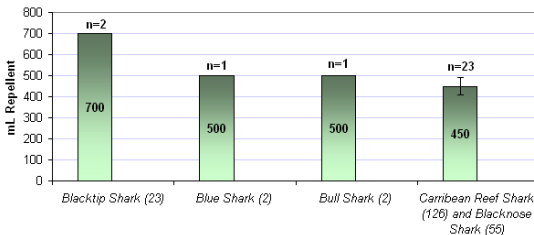
SharkDefense provides two types of chemical repellents for aerosol delivery: Semiochemical and synthetic repellents. Semiochemical shark repellents utilize chemical signals derived from catabolites in decayed shark tissue. These compounds are useful for reducing interactions with **most coastal sharks and rays**, including great hammerheads, blacktips, bull sharks, and southern stingrays. Semiochemicals are highly specific to sharks, therefore, bony fish (teleosts) are not affected.

Synthetic repellents utilize reactive short-chain water soluble compounds which useful for reducing interactions with one particular species of shark, such as a Great White or large tigers. These compounds are better suited where one species of shark, typically large in size, is encountered.

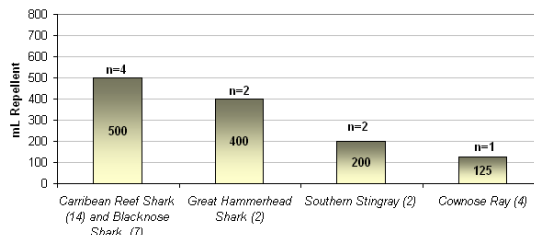
SharkDefense recommends that four (4) 6 fl. Oz. aerosol canisters are deployed simultaneously in order to create a protective zone. Each canister holds a minimum of 4 fl. Oz (118mL) of repellent, allowing 473mL of repellent to be delivered around a victim or rescue site.



Total milliliters of semiochemical repellent delivered by aerosol canisters needed to repel competitively feeding sharks. (n) indicates the number of trials. Values next to species indicate total number of sharks tested.



Milliliters of semiochemical repellent dispensed as a surrounding cloud needed to repel a shark from visual range. (n) indicates the number of trials. Values next to species indicate total number of sharks tested.



Milliliters of semiochemical repellent needed to repel competitively-feeding sharks or rays from a baited cage. (n) indicates the number of trials. Values next to species indicate total number of sharks tested.



Water-activated triggers change color to indicate an active (green) or spent (red) condition.

The efficacy and ease of deployment of our SD-1 aerosol canister with semiochemical shark repellent has been featured on numerous international documentary and television programs. Recent demonstrations include:



Blue Oceans Series
BBC with host Philippe Cousteau Jr.

Tigress Productions UK
Segment for Shark Week 2007

Discovery Channel – Dirty Jobs
“Jobs that Bite” with host Mike Rowe

Univision Miami
Anchor Ricardo Arambarri

Feb. 2008 Host was in water (scuba) with stimulated sharks, deployed a single two-year old canister with semiochemical

Mar. 2007 Volunteer was in water (surface) with stimulated sharks, deployed four (4) one-year-old canisters with semiochemical

May 2006 Host was in water (surface) with stimulated sharks, deployed four (4) fresh canisters with semiochemical

Sep. 2005 All witnesses were out of the water. Deployed a single canister at the surface.



2006 - Host Mike Rowe after a successful repellent test at South Bimini Bahamas using an SD-1 canister with water-activated trigger.

SPECIFICATIONS AT-A-GLANCE

Canister Specifications		Environmental Compliance (Shark Repellents)	
		Regulation	Assessment
Can body	Steel or aluminum, internal epoxy coating	List of Lists, Title III – Consolidated List of Lists. (EPCRA, SARA, CAA, CERCLA, RCRA)	Compliant
Can volume	4 fl. oz () to 16 fl. oz ()		
Valve assembly	1 inch crown , invertible release	Federal Water Pollution Control Act, as amended (Clean Water Act)	Compliant
Propellant	A70 hydrocarbon or Nitrogen	Emergency Planning and Community Right-to-Know Act / Toxics Release Inventory	Compliant
Propellant pressure	60 psig	Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 <i>et seq.</i>); P.L. 92-516	Compliant
Manual trigger	2.7 grams. Polypropylene single click, single use, full evacuation	Ocean Dumping Act, as amended (33 U.S.C. §§ 1401 <i>et seq.</i>)	Compliant
Automatic trigger	47 grams. Single use, full evacuation. United Moulders MK5ii assembly (CE Mark)	Title 49-Transportation, Part 172 Appendix A	Nitrogen propellant is a nonflammable gas (US DOT 2.2) A70 propellant is a flammable gas (US DOT 2.1)
Evacuation time	>60 seconds	Title 49-Transportation, Part 172 Appendix B (Marine Pollutants)	Not cited
Repellent Specifications		WHO Acute Hazard	Not cited
Protection time		TRI Acute Hazard	Not cited
Semiochemical	>15 minutes observed	Cholinesterase Inhibitor	Not cited
Synthetic	>15 minutes observed	IARC Carcinogens	Not cited
Solubility		U.S. NTP Carcinogens	Not cited
Semiochemical	Water soluble	California Prop 65 Known Carcinogens	Not cited
Synthetic	Water soluble	U.S. EPA Carcinogens	Not cited
Repellent Fill Volume		TRI Carcinogen	Not cited
Semiochemical	Min. 118mL/can	Illinois EPA List	Not listed
Synthetic	Min. 118mL/can	Keith List (Endocrine disruptors)	Not listed
		Colborn List (Endocrine disruptors)	Not listed
		Benbrook List (Endocrine disruptors)	Not listed
		EU List (Endocrine disruptors)	Not listed

DISCLAIMER: No shark repellent is 100% effective. Sales are limited to qualified government, safety, and fisheries agencies.