Tarball Facts

Tarballs are small, dark-colored, often sticky-to-the-touch remnants of oil spills or natural oil seeps in the ocean. When crude oil from a seep or spill (or a heavier refined product) floats on the ocean surface, its physical characteristics change.

Formation

During the first few hours of a spill or natural release, the oil spreads into a thin slick. Winds and waves break the slick into smaller patches that scatter over a much wider area. Various physical, chemical, and biological processes change the appearance of the oil by a process called “weathering.” As winds and waves continue to stretch and break the oil patches into smaller pieces, formation of tarballs and/or tar patties occurs.

Initially, the lighter components of the oil evaporate or dissolve into the water much like a small gasoline spill. In the cases of heavier types of oil, such as crude oil, much of the oil remains behind. At the same time, some crude oils mix with saltwater to form an emulsion that often looks like chocolate pudding or mousse. Emulsion is much foamier and stickier than the original oil.

Size

Tarballs range in size, but are less than 10 centimeters (cm) in diameter, generally coin-sized. Tar patties are greater than 10 cm in diameter and generally pancake-sized. Because tarballs/tar patties can persist in the marine environment, they can travel hundreds of miles from the original oil release point.

Characteristics

- Often hard and crusty on the outside, soft and gooey on the inside, like a toasted marshmallow
- Fresh tarballs may be more like drops of molasses in appearance
- Temperature has an important effect on the stickiness of a tarball. (The warmer the temperature, the stickier the tarball)
- The amount of particulates and sediments present in the water or on the shoreline, which can adhere to tarballs can affect the tarball stickiness and buoyancy
- Extremely difficult to predict how long a tarball will remain sticky

Clean up

Once tarballs hit the beaches, they may be picked up by hand or by beach-cleaning machinery. If the impact is severe, the top layer of sand containing the tarballs may be scraped and replaced with clean sand.

The number of tarballs found on the beach depends on several factors:

- Marine traffic
- Wind patterns
- Sea currents
- Whether source was an oil spill or seep occurred recently and
- How often the beach is cleaned

Hazards to Human Health

Oil contains hazardous chemicals, and the public is reminded to avoid contact with the tarballs. If contact occurs, wash the area with soap and water, baby oil, or a widely used, safe cleaning. Avoid using solvents, gasoline, kerosene, diesel fuel, or similar products on the skin. These products, when applied to skin, present a greater health hazard than the tarball itself.

Hazards to Wildlife

The hazardous risks associated with human exposure to tarballs are also true for biological resources. Wildlife may pick tarballs up on their feathers or fur, which may result in a loss of waterproofing and life threatening exposure to cold. Also, in trying to clean the tarballs off, wildlife may ingest the hazardous materials.

Wildlife officials ask that injured or oiled wildlife be left to the professionals to minimize injury to the untrained rescuers and impacted wildlife. Specially trained personnel possess the training, equipment, and knowledge to capture, clean and rehabilitate impacted wildlife. Strict protocols developed over many years are followed to maximize the survivability of impacted wildlife. If distressed wildlife is observed, contact the Oiled Wildlife Care Network at (877) UCD-OWCN.