

Small Engines

Proper Disposal of Used Motor Oil

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More than 600 million gallons of used motor oil are generated in the U.S. each year. Approximately 250 million gallons are disposed of improperly each year. Used motor oil pollution is a quiet but dangerous problem. Used oil contains toxic substances that can kill plants and animals, spoil water supplies and even cause cancer.

When used motor oil is spread on the land, soil productivity is reduced and surface or groundwater supplies may be contaminated. One quart of used oil will foul the taste of 250,000 gallons of water. Oil in surface waters severely disrupts the life-support capacity of the water. Oil encourages the growth of organisms that deplete the dissolved oxygen supply available to aquatic life, such as fish. Without oxygen, they die. Oily films on the surface block sunlight, affecting the growth of plants and the direct entry of airborne oxygen. The toxic substances in used oil kill the small organisms that support the rest of the food chain.

Used motor oil must be handled carefully because it contains carcinogenic and other toxic substances. Among the more serious health hazards is the large amount of lead found in much of the used oil. Leads and other dangerous compounds accumulate through the combustion process in the engine of a vehicle. Used motor oil must be processed to remove toxic contaminants before it can be safely reused. The elimination of tetraethyl lead in gasoline will significantly reduce the amount of lead

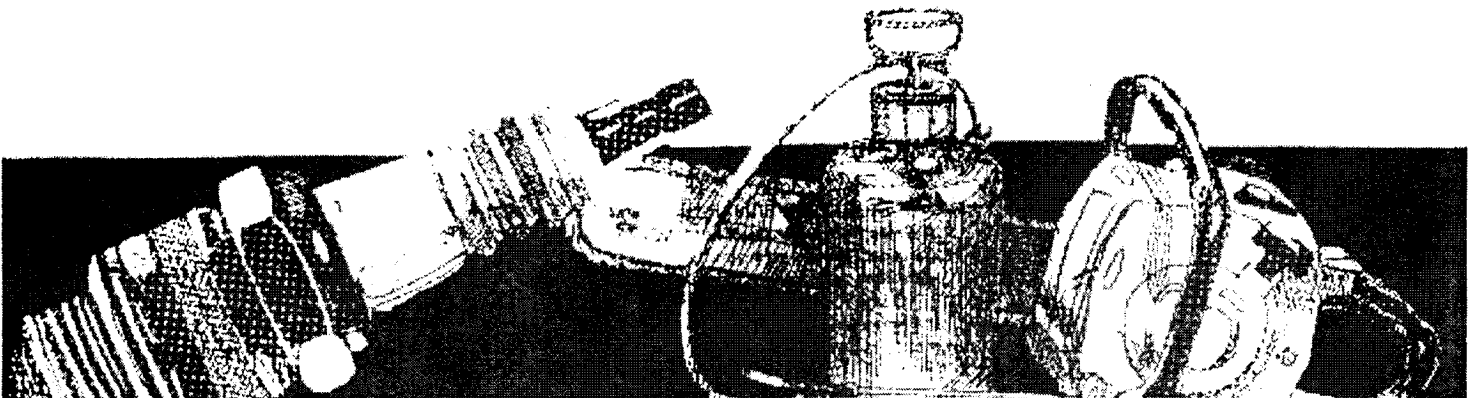
contamination of used motor oil. The Environmental Protection Agency (EPA) has enacted regulations that prohibit further use of lead (after current supplies of leaded fuel are exhausted) in gasoline due to toxic exhaust emissions from vehicles burning leaded fuel.

Contamination by the toxic substances in used oil can be a serious health hazard to humans in three ways:

- 1) People may consume the contaminated water directly.
- 2) Toxic substances in used oil become concentrated in water, plants and animals and poison people who may eventually eat them.
- 3) Direct skin contact over an extended period of time has been identified as a potential cause of cancer.

Oil Recycling Pays

Used oil is not just an environmental problem. It is a valuable resource that can be re-refined: cleaned up and purified into high-quality motor oil again. Motor oil is used as a lubricant to keep engines running. It isn't burned up or changed completely, as is gasoline. Motor oil just gets dirty. Re-refining this oil is easier and cheaper than producing it from crude oil pumped out of our oil reserves. Only 2¹/₂ quarts of virgin motor oil can be obtained from one 42-gallon barrel of crude oil. One



gallon of used motor oil will produce the same 2½ quarts of equally high-quality motor oil.

Used motor oil can also be used as a fuel oil after it has been processed to remove dangerous contaminants. The 600 million gallons of used oil generated each year in the U.S. would heat about 900,000 homes each year.

Dispose of Used Oil Properly

About 60 percent of the used oil in the U.S. is disposed of improperly. This oil is handled by do-it-yourselfers who change the oil in their own vehicles and who, in many instances, have no access to proper disposal. The used oil is poured on the ground, poured down storm sewers, spread on gravel and dirt roads or put into containers for disposal in local landfills. Although none of these disposal methods are desirable, the landfill method would be the most desirable if no other choice of disposal is available.

The proper way to dispose of used motor oil is to recycle for re-refining into new oil. Many service stations and garages will collect used oil and store it until it is collected by a used-oil hauler. The used-oil person is usually an independent business person who buys oil from collection sources and transports it to processors for cleanup and re-refining.

If used oil collection sites are not available in your area, you may wish to organize a group to establish such collection centers. Local civic organizations in many communities operate collection centers at profit. Used oil is worth about 15 to 25 cents per gallon in most areas. A publication is available from the American Petroleum Institute (API) that details procedures for establishing a recycling program in communities. "Recycle Used Motor Oil" is available by writing to:

American Petroleum Institute
1220 L Street NW
Washington, D.C. 20005

Location of Used Oil Recycling Centers in Tennessee

If you do not know the location of oil and other automotive item recycling centers or collection points, you can call toll free to learn what locations are available in your county. The toll free number is 1-800-287-9013.

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