



Product Stewardship Summary Ethylene Fuel Oil

This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of all health and safety information. Additional information on this chemical is available through the applicable Material Safety Data Sheet which must be consulted before using this chemical. The product stewardship summary does not supplant or replace required regulatory and/or legal communication documents.

Chemical Identity:

Ethylene Fuel Oil is a colorless liquid at room temperature. It is a combination of aromatic hydrocarbons consisting of various aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C17. Ethylene production via thermal steam cracking produces a wide variety of byproducts that are subsequently separated through distillation into various fractions. Ethylene Fuel Oil is produced and separated as a byproduct of the thermal steam cracking process in an ethylene production complex.

CAS Number: 68333-88-0 CAS name: Aromatic hydrocarbons, C9-17

Synonyms: Sweeny Heavy Oil; Sweeny Heavy Oil #6; Heavy oil #6 Fuel Oil Heavy

Product Uses:

Ethylene Fuel Oil is used in the refinery process as process heating fuel in fired heaters.

Physical/Chemical Properties:

Ethylene Fuel Oil is classified as flammable liquid category 3 under the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and combustible liquid under OSHA (Occupational Safety and Health Administration). Maintenance of special handling and storage procedures is required.

Health Information:

Based on available data for similar materials and the components, Ethylene Fuel Oil is classified in the following GHS categories: skin and eye irritation, mutagenicity, carcinogenicity, reproductive toxicity, aspiration hazard, specific target organ toxicity (eyes, blood, auditory organs). Furthermore, the Ethylene Fuel Oil CAS number is included in the category of "low benzene naphthas category" under the U.S. Environmental Protection Agency High Production Volume (U.S. EPA HPV) program. Hazards of the category were characterized and summarized under the HPV program and more information can be found in the "sources of additional information" section of this document.

Environmental Information:

Based on available data for similar materials and the components, Ethylene Fuel Oil is expected to be toxic to aquatic organisms but is not expected to bioaccumulate. Fugacity

modeling demonstrated it partitions primarily into the air, with slight partitioning into water and soil, and minimal partitioning into sediment.

Exposure Potential:

Exposure to Ethylene Fuel Oil in occupational and non-occupational settings is expected to be very limited. Ethylene Fuel Oil is handled in closed systems and protective equipment is used. Worker exposure is kept to a minimum.

- *Workplace use:* This refers to potential exposure to Ethylene Fuel Oil to persons in a manufacturing facility or through various industrial applications. Manufacturing and transport involving Ethylene Fuel Oil are usually conducted in closed systems, so human exposure is expected to be very limited.
- *Consumer use:* There is no direct consumer use of Ethylene Fuel Oil. Non-occupational exposure to Ethylene Fuel Oil is expected to be limited to exposure following inadvertent release of the product.
- *Potential environmental release:* Ethylene Fuel Oil is stored and transported in closed systems. Exposure to the environment is expected to be very low. Chevron Phillips Chemical is committed to operating in an environmentally responsible manner and has adopted the American Chemistry Council's Responsible Care[®] initiative.

Risk Management:

Chevron Phillips Chemical is committed to Product Stewardship and doing business responsibly. We endeavor to provide sufficient information for the safe use and handling of all our products. To that end, Material Safety Data Sheets are provided to customers.

Regulatory Information:

Regulations exist that govern the manufacture, sale, transportation, use and/or disposal of Ethylene Fuel Oil. These regulations may vary by city, state, country or geographic region. Additional helpful information may be found by consulting the relevant product Material Safety Data Sheet and local and Federal regulations.

Sources of Additional Information:

- U.S. Environmental Protection Agency (U.S. EPA) High Production Volume Challenge – Robust Summaries & Test Plans for Low Benzene Naphthas
<http://www.epa.gov/chemrtk/pubs/summaries/lowbenze/c13437tc.htm>
- Organization for Economic Cooperation and Development (OECD) – eChemPortal web-based search tool (use applicable CAS No):
<http://www.echemportal.org/echemportal/>
- European Chemicals Agency (ECHA) – Information on Registered Substances:
<http://apps.echa.europa.eu/registered/registered-sub.aspx>
- Chevron Phillips Chemical's Material Safety Data Sheets:
<http://www.cpchem.com/en-us/pages/msdssearch.aspx>

Conclusion:

Ethylene Fuel Oil is mainly used a fuel in fired process heaters in a refinery or chemical

plant. Ethylene Fuel Oil is a flammable liquid. It may cause skin and eye irritation, genetic defects, cancer, reproductive toxicity, specific target organ toxicity and aspiration toxicity. Appropriate personal protective equipment practices and labeling, storage, and transportation procedures shall be followed. Further, the relevant product Material Safety Data Sheets and applicable regulatory guidelines and requirements, including, but not limited to, OSHA guidelines, should be consulted prior to the use or handling of Ethylene Fuel Oil.

Contact Information:

<http://www.cpchem.com/>

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