



Product Stewardship Summary

E-III® FIRE TRAINING FLUIDS PRODUCT GROUP

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 is available through the applicable Material Safety Data Sheet (MSDS) which should be consulted before use of any chemical. This product stewardship summary does not supplant or replace required regulatory and/or legal communication documents.

Chemical Identity

There are two grades of E-III® Fire Training Fluids: Aviation and Industrial. These Fluids are produced from petroleum or crude oil and consist of aliphatic hydrocarbons (primarily branched paraffins) ranging in carbon number from C₅ to C₁₃.

Product Uses

E-III® Fire Training Fluids are used in training applications to accurately simulate aircraft, motor vehicle, industrial, and watercraft liquid petroleum fuel fires.

Physical/Chemical Properties

E-III® Fire Training Fluids are volatile, flammable, and combustible liquids, and vapors may readily form flammable mixtures. The flash points for E-III® Fire Training Fluids are: 100°F (38°C) for the Aviation Grade and <50°F (<10°C) for the Industrial Grade. These products have the potential to cause fires if they are exposed to an ignitable source. Electrostatic charge can accumulate and create a hazardous condition when handling these materials. Containers can explode under pressurized conditions. Due to their inherent explosive characteristics, there are specific requirements for handling, storage, transportation, labeling and disposal. However, it should be noted that these products are typically stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Health Information

E-III® Fire Training Fluids have low acute toxicity. Exposures to vapors or aerosols may be irritating to the eyes and respiratory tract. At high concentrations, vapors and aerosols can also cause central nervous system depression with symptoms such as headaches, dizziness and drowsiness. When there is repeated or prolonged skin contact, these products may cause skin irritation and the use of chemical resistant gloves is recommended in these situations. E-III® Fire Training Fluids are not dermal sensitizers. There is low concern that these products can cause reproductive or developmental effects, and they are not considered to have mutagenic or carcinogenic properties.

If accidentally ingested, a small amount of liquid may be aspirated into the lungs which can occur from either swallowing or from vomiting. Aspiration of liquid into the lungs may cause inflammation of the lungs and lung edema. This is a medical emergency and requires immediate and proper treatment.

Environmental Information

The environmental hazard potential for E-III® Fire Training Fluids is expected to be varied because their toxicity and fate will depend on the individual components in the product. If

accidentally spilled into the environment, these fuels have low solubility in water and are expected to rapidly degrade in air through atmospheric processes. E-III[®] Fire Training Fluids are also biodegraded to varying degrees, but not expected to persist in the environment. Due to their potential to cause significant harm to aquatic organisms and bioaccumulate, significant care should be taken to avoid release of these products to sewage, drainage systems and water bodies. Spillage should be quickly collected and properly disposed of to minimize harm to the environment.

Exposure Potential

The most likely routes of possible exposure to E-III[®] Fire Training Fluids are by inhalation and skin contact. The best way to prevent exposure is to work in well-ventilated areas, wear chemical resistant gloves and follow good personal hygiene practices.

Workplace use:

The potentially exposed populations include: (1) workers who manufacture and/or blend these products or further formulate them with additives to meet technical specifications; (2) quality assurance workers who sample and analyze the products to ensure that they meet specifications; (3) workers involved in distribution and storage of these products; and (4) commercial consumers, in occupational settings, that use these products in intended applications. The most likely routes of exposure to E-III[®] Fire Training Fluids in a workplace setting are inhalation exposure and skin contact. The probability of exposure to personnel is expected to be low because E-III[®] Fire Training Fluids are sold to experienced industrial customers that are familiar with their intended applications, safe handling, storage and disposal requirements. Manufacturing, quality assurance, and transportation workers should wear appropriate personal protective equipment (PPE), and should likely have access to engineering controls to prevent exposure. Customers should use appropriate PPE during handling and use. In addition, customer facilities typically have risk mitigation measures in place to address potential physical hazards or accidental releases.

Consumer use:

Potential exposure to the general public is not anticipated for these products as they are not intended to be sold to the general population. If a large scale spill or fire occurred near a residential setting, odor complaints and/or inhalation exposures to the general population are possible.

Potential Environmental Release:

There may be some potential for exposure to the environment from accidental releases of E-III[®] Fire Training Fluids during transportation of large quantities over long distances via trailers and railcars; however, the frequency of distribution incidents involving accidental releases of these products has been low, and reported product volumes spilled have been minimal. 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. We begin by ensuring that all of our customers, distributors, carriers, and users of the products in E-III[®] Fire Training Fluids Product Group are well informed about the properties of each product. To that end, a Material Safety Data Sheet and a Certificate of Analysis accompany each shipment from our manufacturing plant.

Regulatory Information

Regulations exist that govern the manufacture, sale, transportation, use, and disposal of E-III[®] Fire Training Fluids. These regulations may vary by city, state, country or geographic region. Additional relevant information may be found by consulting the applicable product Material Safety Data Sheet.

Sources of Additional Information

Material Safety Data Sheets (MSDS) at <http://www.cpchem.com> for the following products:

- E-III[®] Aviation Fire Training Fluids
- E-III[®] Industrial Fire Training Fluids

Organization for Economic Cooperation and Development (OECD): eChemPortal web-based search tool

- <http://www.echemportal.org>

European Chemical Agency (ECHA) Dissemination portal with information on chemical substances registered under REACH

- <http://apps.echa.europa.eu/registered/registered-sub.aspx>

U.S. Environmental Protection Agency: High Production Volume Information System (HPVIS)

- <http://www.epa.gov/chemrtk/hpvis/index.html>

Conclusion

E-III[®] Fire Training Fluids contain components that are classified as hazardous chemicals. Efforts should be taken to minimize exposure to these products by adhering to safe handling procedures, designated applications and uses, appropriate personal-protective equipment practices, and labeling, storage, and transportation procedures and requirements. The relevant product Material Safety Data Sheet and applicable regulatory guidelines and requirements, including but not limited to Occupational Health and Safety Administration (OSHA) guidelines, should be consulted prior to the use or handling of these products.

Contact Information:

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

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