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Product Stewardship Summary
NON-COMBUSTIBLE ORGANIC LIQUIDS GROUP

The 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 Safety Data Sheet (SDS) 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:

The Non-Combustible Organic Liquids Group is comprised of three (3) products that include emulsions and suspensions.

- DIACEL® ATF ANTIFOAM
- DSCO™ Defoam
- Greenbase™ Flowzan® Biopolymer

Category Justification:

The Non-Combustible Organic Liquids Group products have similar physical and chemical characteristics. In general, these products exhibit similar health and environmental hazards, with small differences in their physical and chemical properties. This group includes non-aqueous fluids with flash point ≥200 °F (93.3 °C).

Product Uses:

These products are commercially available to oil or gas service industry customers, and are generally used as drilling mud additives, completion fluids, cementing additives, acid gelling agents, friction reducers, fluid thickeners, oil well cement spacer fluids, and fluid additives in oil field operations.

Physical/Chemical Properties:

These products are non-combustible liquids and are unlikely to cause fires when exposed to an ignition source.

Health Information:

The products in the Non-Combustible Organic Liquids Group have low potential for adverse health effects. Greenbase™ Flowzan® Biopolymer, may cause serious but reversible irritation if splashed into the eye. No other health effects are associated with the products in this category. Notably, none are toxic to reproduction or development and none are mutagenic or carcinogenic.

Environmental Information:

The environmental hazard potential of the Non-Combustible Organic Liquids Group products is expected to be low (i.e., they are not expected to cause significant harm to aquatic life). Based on individual components of these products, it is predicted that they likely undergo degradation in the environment and will not persist. These products also demonstrate a low potential to bioaccumulate in aquatic life. However, care should be taken to avoid direct release to sewage, drainage systems, and water bodies. Spillage should be quickly collected and properly disposed of, further reducing the potential for harm to the environment.

Exposure Potential:

The most likely routes of exposure to the Non-Combustible Organic Liquids Group products are skin and eye contact, with limited potential for exposure by inhalation due to the low vapor pressure. The best way to prevent exposure is to work in well-ventilated areas, wear appropriate personal protective equipment (PPE), and follow good personal hygiene practices.

Workplace use:

Potentially exposed populations include: (1) workers who manufacture these products; (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 probability of exposure to workers is expected to be low because these products are manufactured in enclosed, controlled environments, and are transported in tightly sealed containers. These products are sold to industrial customers that are familiar with their intended applications, safe handling, storage, and disposal requirements. Manufacturing, quality assurance and transportation workers should adhere to safe handling practices and wear appropriate personal protective equipment (PPE), and have access to exposure prevention measures (e.g., engineering controls). Customers should also use appropriate PPE during handling and have risk mitigation measures in place to address potential physical hazards or accidental releases.

Consumer use:

Potential exposure or health impacts to the general public is not anticipated. These products are sold by Chevron Phillips Chemical to industry users knowledgeable in the safe handling and use of these products. In the event of a fire, inhalation of hazardous combustion byproducts could be a potential concern for nearby residents.

Potential Environmental Release:

The potential for accidental releases of these products to the environment is possible during transportation of drums, totes, truck trailers, rail cars, or container ships; however, the frequency of distribution incidents involving accidental release of these products has been low, and reported volumes spilled have been minimal. Furthermore, pallet containers are stretch-wrapped or shrink-wrapped to minimize the potential for product loss. Small quantities are shipped for laboratory quality and performance testing, typically one (1) pound or less. Those performing the tests understand the hazards and adhere to the safe handling practices as explained above. The current and anticipated use of these products in designated off-shore/on-shore rig applications is not expected to result in significant loss to the environment because containers are handled one-at-a time. Chevron Phillips Chemical is committed to operating in an environmentally responsible manner and participates in the American Chemistry Council's Responsible Care® program.

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 make product information available to all of our customers, distributors, carriers, and users of these products which contain detail about the properties of each product. To that end, a Safety Data Sheet and a certificate of analysis accompanies each shipment from our manufacturing plant.

Before using these products, the user is cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question. It is the ultimate responsibility of the user to ensure suitability for use and determine if this information is applicable to the user's specific application. Chevron Phillips Chemical does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or

from any course of dealing in connection with the use of the information contained herein or any product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or any product itself.

Regulatory Information:
Regulations exist that govern the manufacture, sale, transportation, use, and disposal of these products. These regulations may vary by city, state, country or geographic region. Additional relevant information may be found by consulting the applicable SDS.

Sources of Additional Information:
Safety Data Sheets (SDS) at https://www.cpchem.com or available upon request at SDS@CPChem.com

- DIACEL® ATF ANTIFOAM
- DSCO™ Defoam
- Greenbase™ Flowzan® Biopolymer

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

- https://echa.europa.eu/information-on-chemicals

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

- https://www.echemportal.org/echemportal/

United States Environmental Protection Agency (USEPA). 2012. Integrated Risk Information System (IRIS). Ethylene Glycol Butyl Ether (EGBE). Available online at: http://www.epa.gov/iris/subst/0500.htm

Conclusion:
Although this category of products has low potential for adverse health and environmental effects, efforts should be taken to minimize exposures to these products and environmental releases. Adhering to safe handling procedures, designated applications and uses, appropriate personal protective equipment practices, labeling, storage, and transportation procedures and requirements. The relevant product Safety Data Sheets 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:
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