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V FLUSH: BREAKTHROUGH IN DOWNTIME REDUCTION FOR DECONTAMINATION PROCEDURES pH neutral flushing agent without a flash point

Vecom, with her department "Industrial Services", provides on-site services in cleaning and maintenance of large process installations. With the launching of a very promising new product by the name of V-Flush, this department is now focusing on the decontamination of installations during turnarounds, such as:



- Desalters
- Crude units, including residue exchangers
- Fluid Catalytic Crackers
- Platformers and Reformers
- Ethylene Compressors and Quench Systems

V-Flush is an environmentally safe cleaning product that can be utilized in both petrochemical and refinery systems. It is a blend of wetting agents, emulsifiers, and a powerful detergent.

V-Flush is used to remove light and heavy end hydrocarbon distillates for full unit decontamination as well as individual towers, vessels, heat exchangers and tanks. The usual concentration varies from 0.5 to 2% by weight in water. V-Flush is a non-corrosive, 100% biodegradable solution.

Properties

Flash point : none
Color: light yellow / brown
Smell: distinct
pH 100%: 8
Specific gravity: approx. 1 g/cm³

Requirements

- Sufficient contact of all internal surfaces with heated water and steam
- Temperature ranging from 50-90° C (120-195° F) depending on application and contamination
- High volume flow to flush unit and a turbulent physical contact with heavy hydrocarbon deposits
- Filtration/homogenization equipment
- Approved pump-off point for spent solution

Advantages

- Decreases downtime. When a comparison is made between steaming and using V-Flush the downtime can be reduced from 30 to 70% as compared to steaming.
- Decontamination of heat exchangers takes considerably less time when using V-Flush as compared to Hydroblasting.

- Eliminates the need for using SCBA (Self Contained Breathing Apparatus), which is usually required to enter vessels for maintenance and inspection.
- Faster access to systems since there is no need for a lengthy steaming process, enabling a significant reduction of downtime.

Environmentally safe

Being 100% biodegradable, the V-Flush has no adverse effect on a refinery's biotreater or waste water treatment plant.

Heat transfer

We have learned from experience that heavy hydrocarbon build-up on heat exchangers cannot be efficiently removed when employing the conventional Hydroblasting method, so that no effective heat transfer can be achieved afterwards. V-Flush increases the heat transfer rate significantly and is therefore also more cost effective.

Waste

The emulsion that remains after cleaning with V-Flush can be readily processed. The emulsion will break within a few hours, and will smoothly separate into an oil/water phase. The water phase meets the generally accepted standard of a COD less than 5,000 milligrams O₂/liter.

Stable emulsion and demulsification

It is absolutely necessary that the emulsion remains stable during the decontamination period. It will break after being pumped out of the system. A demulsification test will be carried out upon client's request.

Service

Vecom Industrial Services B.V. offers a complete range of services for turnarounds, and supplies the necessary know-how, qualified personnel, equipment and cleaning chemicals. Vecom can also treat effluents in the event of disposal.

