



DC-13

halide-free, noncorrosive cleaner

DC-13 is an excellent all-purpose cleaner formulated specifically to assist in the safe removal of soil which may contain radioactive material. Pink in color, DC-13's formula incorporates a pleasant lemon fragrance.



Providing Quality Maintenance and Chemical Specialty Solutions with Unparalleled Customer Service



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HALIDE FREE

Halides are ions such as chloride, fluoride, iodide, and bromide. These ions react with metal equipment causing corrosion. Nuclear power plants, radiology laboratories, nuclear medicine departments in hospitals, public utility operations, and many industrial plant operations utilize expensive equipment. It is important that this equipment be unaffected by the detergent utilized during normal cleaning of floors, walls, and other nonporous surfaces or during cleaning of the equipment itself.

Cleaners containing less than 80-ppm chloride, fluoride, iodide, or bromide are considered halide free. Analytical studies indicate DC-13's halide content to be well under the 80-ppm level. Consequently, the use of DC-13 is recommended whenever there is concern relating to metal corrosion of equipment.

LOW NEUTRON ABSORPTION PROPERTIES

DC-13 contains only trace amounts of cadmium, boron, zinc, mercury, aluminum, copper, and lead. These elements have a high degree of nuclear absorption and contribute to the "spread of radioactivity." These high neutron absorption cross sections are called poisons when present in nuclear fuel. Consequently, it is important that the cleaning material used in areas exposed to radioactivity be relatively free of these elements. When used according to dilution recommendations, users will experience excellent cleaning with substantially reduced levels of radioactivity.

LOW FOAMING

All liquid waste material containing low level contaminants must be properly disposed of through an evaporation process. Spent cleaning solutions that tend to foam excessively inhibit the efficiency of the evaporation process. DC-13's low foaming characteristic does not

interfere with the separation of water and contaminated waste. DC-13's low foaming trait also makes it an excellent cleaner for use in conjunction with floor scrubbers.

EXCELLENT CLEANING ABILITY

DC-13 is formulated with wetting agents of the type extensively used in industrial operations for pre-cleaning oil from metal prior to plating or painting. These nonionic wetting agents possess superior wetting properties that speed the penetration and emulsification of soil. When used according to recommended dilutions, users will experience excellent cleaning performance in areas where there is concern relating to metal corrosion and levels of radioactivity as well as in noncritical areas where good cleaning performance is the primary requirement.

POTENTIAL USERS:

The use of radio isotopes and other elements which produce radioactivity has increased as well as the need for a cleaning material to remove soils exposed to or containing low level contaminants. Listed below are just a few of the potential users of DC 13:

- Hospital X-Ray and Nuclear Medicine Departments
- Nuclear Weapon Arsenals
- Nuclear Pharmaceutical Supply Houses (who pre-package isotopes for hospitals)
- Isotope Laboratories
- Uranium Enrichment Plants
- Public Utilities Companies
- Veterans Administration Hospitals
- Research Laboratories
- Universities
- Missile Sites
- Naval Operations/Nuclear Submarines
- Radiology Laboratories
- Medical Centers
- Clinics
- Pipe Fitters

- Industrial Plants (requiring a cleaner that is non-corrosive to metal)
- Service Contractors (who are often utilized by atomic power plants due to restrictions relating to radioactivity exposure per man)
- Atomic Energy Plants

DIRECTIONS FOR USE:

General cleaning: walls, floors, and other hard, nonporous surfaces as well as to reduce levels of radioactivity resulting from occasional spills or accidents: Use 3 ounces DC-13 per gallon of water (1:43). Higher concentrations of DC-13 may be used depending on soil conditions.

Automatic Scrubbers: Use 2 ounces of DC-13 per gallon of water (1:64). DC-13 is mildly alkaline in nature.

CAUTION: This product is alkaline in nature. It should not be taken internally.

Be sure to read all Directions, Precautionary and First Aid Statements on product labels before use of this or any Spartan product. If questions remain, consult your employer or a physician. Material Safety Data Sheets for all Spartan products are available from your authorized Spartan distributor or by visiting www.spartanchemical.com.

SPECIFICATION DATA:

pH (concentrate)- 10.5–11
 Color - Pink
 Biodegradable
 Phosphate Free



PACKAGING

206565	330-gallon tote
206555	55-gallon drum
206505	5-gallon pail

Label copy is available in English and Spanish. Secondary labels are also available.

GUARANTEE: Spartan's modern manufacturing and laboratory control insure uniform quality. If dissatisfied with performance of product, any unused portion may be returned for credit within one year of the date of manufacture.



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