

FORCE 28

(Water Based; Alkaline Cleaner; MIL-C-87936A; Solvent Detergent)

INTRODUCTION

A general-purpose liquid detergent cleaner used to remove common soils, such as grease, oil, ink markings, soot, and dirt & light carbon, from hard surfaces. These soils are removed without heat, fumes or fire hazard. Non-toxic under normal conditions of use. It is safe on commonly used metals including aluminium, magnesium, aluminium alloys and on plastics, Plexiglas, rubber, porcelain, concrete, cement, wood, tile, fabrics and painted surfaces. It is applied by spraying, mopping, wiping, or by immersion. This product has been specially designed with high safety levels and is extensively used in the Aircraft Industry where cleaning has to meet high safety standards. This product has been successfully tested by the South African Bureau of Standards and conforms to MIL-C-87937A as well as being approved by S.O. ENG [RAM] in the South African Air Force as an Aircraft Maintenance Cleaner.

ADVANTAGES

- Bio-degradable
- Emulsifies oil / grease, etc.
- Excellent storage stability
- Safe on hard and soft surfaces
- Free of chlorinated hydrocarbons
- Dilutable with water, yet rust-inhibited
- Corrosion safe on aluminium, magnesium and light alloys
- Non-toxic and non-flammable: safe for personnel to handle
- Low - moderate foamier / usable in automatic scrubber vacuum machines

PROPERTIES

Specific Gravity	:	1,065 - 1,075 at 75°F
pH Level - Concentrated	:	10,5 to 12,0
pH Level - 10% Solution	:	10,5 to 11,5
Flash point	:	> 100°C
Cold Stability [40°C - 16°C]	:	Shall remain homogenous, uniform and clear
Hard Water Stability	:	No precipitation
Stress Cracking	:	No cracking or staining
Painted Surfaces / Dyes	:	No streaking, blistering, discolouration or decreasing of film hardness used at 20% concentration or lower
Chlorinated Hydrocarbon	:	Nil

APPLICATIONS

Metal working industry, to clean:

Lathes
Drill Presses
Punch Presses

Milling Machines
Screw Machines
Boring Mills

Shapers
Planers
Grinders

Building, office and plant maintenance, to clean:

Carpets
Concrete floors
Terrazzo floors
Linoleum and asphalt tiles
Acoustic tile ceilings
Kitchen hoods and vents
Elevator pits
Air filters
Air conditioning ducts and grilles

Upholstery
Painted surfaces
Light fixtures
Kitchen equipment
Stainless Steel
Ventilating fans
Walls
Piping
Loading bays

Automotive maintenance, to clean:

Engines & gearboxes, etc.
Rims
Service bays / pits
Upholstery
External surfaces
Metal containers

White wall tyres
Chassis
Overalls
Carpets
Internal surfaces
Painted surfaces

Printing industry, to clean:

Presses
Machine parts
Processors

Ink rollers
Guillotines
Tools

Food industry, to clean:

Kitchen equipment
Bake ovens and stoves
Walls, ceilings and floors
Slicing and wrapping machines

Stove hoods
General clean-up
Food wagons
Trolleys and trays

METHOD

General Purpose Cleaning

For general purpose cleaning use 1 to 4 parts FORCE 28 to 20 parts water, dependant on severity of soils. Use hot or warm water to expedite cleaning. Can be applied by wipe-on or immersion, low pressure spraying equipment and low hand sprays.

Apply FORCE 28, allow to soak 1 - 5 minutes, then wipe off or flush off with pressure water. For stubborn soils, it may be necessary to agitate the soil with a cloth, sponge or brush.

High-Pressure Hot Water Spray Cleaner

FORCE 28 is especially recommended for use in high-pressure hot water spray cleaners. It will not clog ball valves. A concentration of 1 - 2 parts FORCE 28 to 20 parts water is effective for average soil conditions.

Steam Cleaner

For average soils, use ½ litre FORCE 28 to 25 litres water in the solution tank. For heavier soil conditions increase FORCE 28 concentration to ½ to 1½ litre/s FORCE 28 to 25 litres water.

Scrubber / Vacuum Cleaner

Because of its low foaming characteristics, FORCE 28 is excellent for automatic scrubber / vacuum machines. The foam intensity is so controlled so as not reach "high foam cut-off points" when in operation. This makes it an unbeatable combination for cleaning factory and office floors and loading bays. Use ½ to 1 litre of FORCE 28 to 25 litres of water.

Low Pressure Automatic Spray Equipment / Hand Spray Units

Mix a solution of 1 part FORCE 28 to 4 up to 10 parts of water. Apply to surface to be cleaned and leave for 1 to 5/10 minutes, agitate if necessary and rinse off with high-pressure water equipment.

Household Vacuum Cleaner

FORCE 28 used in household vacuum machine applications is excellent as a carpet or upholstery cleaner, even when rinsing is omitted. Use ¼ to 1 cup [depending on severity of soils] of FORCE 28 to 4,5 litres of warm water and clean as necessary.

CAUTIONS

Although FORCE 28 is relatively safe with no hazardous implications, it is always advisable to take the necessary precautions as is with all Chemical Cleaning Products.

WARRANTY

We warrant our goods to conform to our standard specifications. This warranty is in lieu of any and all other warranties or guarantees. Our obligation hereunder for breach of such warranty is limited to either refund of the purchase price or replacement of said product as we may elect. We make no other warranties, express or implied, including those of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE.

We believe that the statements, technical information and recommendations contained herein are reliable, but are given without warranty or guarantee of any kind except as specified above. Beyond that specified above, we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of the use of, or inability to use, our goods. Their quality and suitability for a particular purpose or use should be confirmed by the user's own tests.

STANDARD PACKAGES

1 Litre

2 Litre

5 Litre

25 Litre

200 Litre

DILUTION CHART

ON:	DILUTION
Air Filters (dip and pressure rinse)	As is
Air conditioning ducts and grilles	1:4
Airplanes	1:4 up to 1:10
Brick (boiler fronts and fireplace)	As is up to 1:1
Carpets - vacuum cleaning appliances	1:15 up to 1:60
Concrete floors	As is up to 1:6
Diesel power units	As is
Electric Motors (exteriors)	1:4
Engines	As is up to 1:1
Engine nacelles	1:1 and up
Exhaust stains	1:1 and up
Fibreglass boats	1:10 and up
Floor scrubbing machines	1:25
Flues	As is, 1:1 and up
General maintenance	1:5 up to 1:20
High pressure spray cleaners	1:10 up to 1:20
Kitchen ranges	1:4
Lighting fixtures (exterior)	1:10
Lighting fixtures (interior)	1:50
Linoleum desk tops	1:10
Loading bays / drive-ways	As is up to 1:5
Low pressure sprays / hand spray units	1:2½ up to 1:10
Machinery and machine tools	1:4 and up
Painted surfaces (not water based paints)	1:5 and up
Painted surfaces (specialised water based)	1:10 and up
Presses	1:2 and up
Refrigerators	1:4
Scrubber and vacuum machines	1:25 up to 1:50
Steam cleaning	1:25 up to 1:50
Tiles	1:2
Upholstery - cleaning appliances	1:15 up to 1:60
Vinyl	1:5
Walls (rinse with sponge) (not water based paints)	1:8
Washrooms/Locker Rooms	1:1 up to 1:8
White wall tyres	1:1

APPROVALS

1. Approved by US Coast Guard as a safety solvent for use aboard vessels - Coast Guard Certificate number 155.
2. Approved by Douglas Aircraft Company (DPM-979) as a safety solvent for plant use.
3. Approved by Chrysler Corp Standards Department as a maintenance cleaner for machinery under Specification NP8591.
4. Approved by US Steel, Class F-1.
5. Approved by Martin Company and assigned Stock Number 08-509-400.
6. Approved by Eastern Airlines for exterior aircraft cleaning, Catalogue Number 28-CL-0014.
7. Approved by Pan American World Airways for exterior aircraft cleaning in Overseas Division.
8. Approved by Cadillac Motor Car Division (General Motors Corp) as a machine cleaner, assigned Spec. D24-21.
9. Approved by Flying Tiger Lines Inc for airframe washing.
10. SABS/SAAF: successfully tested against MIL-C-87936A for exterior aircraft cleaning in the South African Air Force.