GENERAL PROPERTIES :

Density	0.9871 (ASTM D 1298-67)
Flash point	None (ASTM 56-64)
Viscosity	40 à 50 cp at 20°C (ASTM 445-74 : 63,6 SUS)
Freezing point	-60°C (ASTM D 97-68)
pH	6 à 6,5 (ASTM D 1293-65)
Chloride	15 to 20 PPM "no trace"
Packaging	plastic cans of 25 Lit and 200 Lit / cartons of 12 x 1 Lit or 4 x 5 Lit

ATLAN' TOL ***NUCLEAR*** has been tested and accepted by ' A.E.A.' Technology Decommissioning and Waste Management (Winfrith-Dorchester-UK).

ATLAN' TOL ***NUCLEAR*** has been formulated within our laboratory and successfully tested by the laboratories of the nuclear power plant DOEL (Belgium).

ATLAN'TOL

eco friendly chemicals

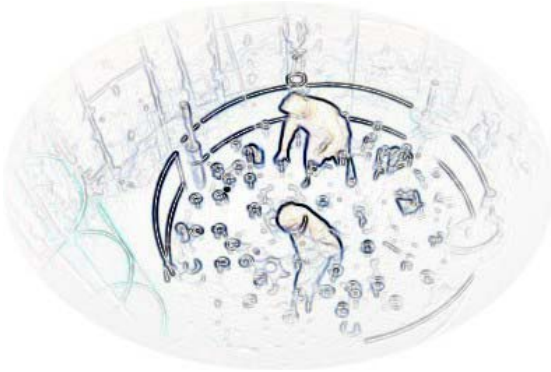
Formulated and manufactured by
EC.O – ATLAN'TOL Inc.
Belgium

www.atlantol.com

ATLAN'TOL®

ATLAN'TOL®

NUCLEAR



LIQUID DECONTAMINATION AND CLEANING AGENT TO REMOVE SUPERFICIAL RADIOACTIVITY FROM ALL SURFACES

NUCLEAR CLEANING AND DECONTAMINATION LIQUID,

especially devised for the cleaning of several parts and for the maintenance in the **" HOT AREA "** of nuclear power stations. It is the SOLUTION to problems caused during the recuperation of waste waters.

An oil and grease **DISPERSANT** , excellent concentrated cleaner, on a tension-active biodegradable basis following the OCDE standards, which does not contain hydrocarbons nor chlorides.

Meets the **REQUIREMENTS** for **HOT AREA**, in the cleaning and decontamination of walls, floors, windows, basins, containers, several machinery and parts , ensuring an appreciable result. Evacuates the superficial radioactivity from all surfaces.

Officially reknowned as valuable nuclear decontaminating agent by **" A.E.A. "** technology decommissioning and Waste Management (Winfrith-Dorchester -UK)
(see enclosures).

- perfect **SOIL DEGREASER**, eliminating the danger of sliding and falling;
- **POWERFUL CLEANER** of atmospheric dusts with evacuation of nuclear residues (isotopes);
- **EVACUATION** of rinsing waters to the waste water, without any foam problems;
- **TOTALLY NON FLAMMABLE**, avoiding therefore fire or explosion danger during the evaporation process of the waste water and the gas recuperation when isolating;
- highly **ECOLOGICAL** liquid :
- biodegradable
- non corrosive / non toxic
colourless
- without danger (skin contact) (unless for allergic people)
- without danger to use in close areas
- stable in storage

USE

Either pure, by pulverisation onto the object or place to be decontaminated or cleaned, or in dilution (1 part of product to 10 parts water). May also be used in premixing with water for projection by means of firehouse for inst. or mechanical cleaners.

The emulsion of oil and grease happens in a few seconds (splitting of the molecular mass) The result is perfectly biodegradable and fully absorbed by micro-organisms; it may be disposed of through the normal channels (drains, gutters, etc...) for so far the treated residues allow it (per example cleaning in non contaminated areas).

EXTERNAL POLLUTIONS
Decontamination of materials, vehicles, clothes when leaving polluted area through a mobile car-wash station or shower facilities (civilian protection – fire brigades)

HOSPITALS
Decontamination of surfaces in radiochemistry rooms (cobalt radiation)

PICKLING BATH

ATLAN' TOL ***NUCLEAR*** will be useful in the decontamination by immersion of heavy radioactive pieces. Added to the immersion bath at ratio of 0.5 to 1%, the ***NUCLEAR*** will destroy all particles (greases, silicones, etc.) floating at the surface and keep them in suspension, avoiding the recontamination during the take out of the bath.

OTHER UTILISATIONS

In steam rooms directly by means of high pressure

Cleaning by glass blast: glass beads are projected together with the liquid. Afterwards the beads are only to be rinsed off with water.

Cleaning and decontamination of floors, walls, windows, containers all over the primary area. Especially on epoxy floors it will not affect the shine.

CORROSION ON METALS

(test BARC and MAPS)

Stainless steel and carbon steel.
Loss of weight in gr. After 27 hours.
Rate of corrosion in mm/year.

Solution at 10% **ATLAN' TOL** ***NUCLEAR*** on demineralised water.
Room temperature: 32 °C

STAINLESS STEEL : 0,0011 gr

CARBON STEEL : 0,0125 gr

WASTE TREATMENT

ATLAN' TOL ***NUCLEAR*** fully evaporates during the process of incineration leaving no residues on its own.

As it is not based on solvents there is no danger of explosions during the burning process

Futhermore as the product is non-foaming, there is no danger of recontamination of the distillation-process.

DECONTAMINATION TESTS

1. Decontamination reactor cavity by high pressure water spraying (Kärcher 1210. p=15Mpa, t= 80°C) at CEZ, Dukovany.
Concentration ca 5g/L
Contamination :
Before spraying : As= 300 – 3000 Bq/cm^2
After spraying: < 40 Bq/cm^2

2. Decontamination of "2PHT pump - mechanical seal of U" (Plutonium plant BARC-Bombay)

- ✓ Contamination beforehand : between 5 and 20 mr /hr
- ✓ Bathing during 24 h in a 10% solution of **ATLAN' TOL** ***NUCLEAR*** at32 ° C
- ✓ Contamination afterwards: between 1 and 2 mr/hr
- ✓ Decontamination factor: +/- 10

3. On "Ram- head of fuelling machine" (SS-17-4 PH)
identical results