

STRONG ALKALINE CLEANER FOR MAINTENANCE

I. APPLICATION AREAS

- GRATO 3000 MARINE is an excellent cleaning compound to be used as tank cleaning agent in combination with butterworth machine, recirculation and high or low pressure systems.
- GRATO 3000 MARINE is a liquid water based strong alkaline cleaning agent, free of solvents and phosphates.
- GRATO 3000 MARINE is especially effective for the removal of inert gas residues and residues of soot and combustion.
- GRATO 3000 MARINE removes oil, fats, and mineral pollution.
- GRATO 3000 MARINE can also be used on chemical contamination in tanks.
- GRATO 3000 MARINE is suitable for use on Ferro metals, stainless steel and epoxy coatings.
- GRATO 3000 MARINE contains a water hardness stabiliser.
- GRATO 3000 MARINE is a foaming cleaner.



II. TECHNICAL DATA

Appearance:	Colorless up to yellowish liquid
Density at 20°C, DIN 51757:	1.08 g/cm ³
pH-value (1%):	+/- 12
pH value 100 %:	12,8
Foam formation:	foaming product
Storage:	5 – 50° C

III. DIRECTIONS FOR USE

Preliminary Statement:

Prior to use it is necessary to read the Material Safety Data Sheet for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

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Solubility in H2O ONL2U
TRADEREGISTER KVK 24225479

STRONG ALKALINE CLEANER FOR MAINTENANCE**APPLICATION**

- GRATO 3000 MARINE is suitable in freshwater only.
- Recommended concentration for re-circulation cleaning : 0,5 - 5%
- Recommended concentration for manual cleaning/spraying : 5 - 10 %
- Spray on the surface from bottom to top with a GRATO 3000 MARINE solution at 0,5 to 10 %.
- Leave the product to work for one to three minutes. Pressure wash from bottom to top.
- Rinse with water from top to bottom.
- Cleaning temperature : 10 - 80°C

IV. BATH CONTROL

GRATO 3000 MARINE solution is controlled by titration of free alkalinity.

Feed, ml:	50 ml
Titrand:	0.1 N HCl
End point:	pH-value 7.0
Indicator:	Phenolphthaleine
Titration factor (TF):	3.125

- Pipette 50 ml bath solution into a clean 300 ml Erlenmeyer-flask.
- Add 4 to 5 drops of indicator.
- Titrate the solution with 0.1 N HCl.
- The endpoint will be shown by a colour change.
- The consumption of the 0.1 N HCl in ml multiplied with the factor 3.125 is equal the concentration of GRATO 3000 MARINE in g/L.

V. WASTE WATER TREATMENT

The level of biodegradability of the surfactants in GRATO 3000 MARINE is greater than 90 %.
GRATO 3000 MARINE must be neutralized in accordance with applicable legislation.

VI. CLASSIFICATION

Please refer to the corresponding Material Safety Data Sheets for details on :

- Hazardous Information
- Transport Regulations
- Safety Regulations

VII. STORAGE

Recommended Storage Temperature: 0 to 40°C
Shelf-life (in unopened original packaging): 36 months

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