



ORTHOCLEAN™

Alkaline Cleaner Technical Information Sheet

Description & Application:

Orthoclean is a superior blend of alkaline metal phosphates with complexing, sequestering and surface active agents, to give a superior, free rinsing, non-foaming, alkaline immersion cleaner suitable for all metal surfaces.

The cleaner is supplied as a liquid concentrate and is formulated to be applied by a dip application process.

Primary features attributable to Orthoclean are:

- Very low foaming;
- Suitable for all ferrous and non-ferrous metal substrates
- Non-corrosive to metals, passes sandwich corrosion test;
- Liquid concentrate for easier handling, concentrate is v stable (>2 yrs).
- Free rinsing to leave attractive, bright finish;
- Particularly suitable where a free rinsing cleaner is desired and the use of phosphates does not compromise local authority waste discharge regulations;
- Formulated with maximum concern for the environment, all surfactants, sequestrants and corrosion inhibitors, etc. are fully biodegradable and non-endocrine disrupting.

Applications

Orthoclean is highly effective for the removal of soils and surface contaminants from ferrous and non-ferrous metal surfaces.

It is suitable for use in:

- Aerospace;
- Automotive;
- Precision engineering;
- Marine and General engineering.

Compatibility

Orthoclean is compatible with most of the metals and their alloys used in engineering.



Certificate No. GB06/69741

Safer
Solutions
For Industry

Health and Safety

Orthoclean is based on essentially non-toxic chemicals. It is not flammable, is neither a known or suspected carcinogen and is formulated using environmentally acceptable detergents and surfactants. It does not contain any endocrine disrupting compounds that are damaging to watercourses.

Orthoclean is classified as irritant and contact with eyes and skin should be avoided.

See Safety Data Sheet for details.

Typical Properties

Appearance	Clear, pale straw coloured liquid
pH	9.6 units (Neat soln)
Density @ 20 °C	1.07
Solubility in water	Completely miscible
Boiling Point, °C	100
Volatile Organic Compounds (VOC), g/L	Nil

Storage life in original, unopened containers, at between 0 °C and 35 °C (32° to 95 °F), is not less than 36 months.

Test Compliance:

Meets the requirements of UK Defence Standard 03-2 method B2.

Capable of meeting the test requirements of AMS 1537

Capable of meeting the test requirements of Boeing specification BAC 5763 Type II and D6-17487

Capable of meeting the test requirements of Douglas specification CSD #1

Process Control

Plant / Equipment:

Tanks/vats used to contain the cleaner should be manufactured from mild steel or corrosion resistant steel.

Pumps should be manufactured from mild steel.

Copper based alloys should be used with caution, some alloys are better than others and users should confirm suitability.

Heating coils should be made from suitable non-metallic materials, non-corrosion resistant steel, corrosion resistant steel or titanium alloys.

Solution Control:

Process tanks should be analyzed periodically to determine the concentration of Orthoclean present and additions made to maintain the concentration within the recommended limits.

The test procedure to undertake this analysis is as follows:

- Pipette a 50ml sample of the process solution into a conical flask.
- Add 5 drops of bromophenol blue indicator sol'n (0.1%) and titrate against 0.1N Hydrochloric Acid to a clear change of colour from blue to yellow.
- Concentration of Orthoclean (g/L) = Titre x N x 29.4
Where N = exact normality of the hydrochloric acid.
Where the result is required in oz/US gal multiply the g/L value by 0.1335

A special test kit is available to facilitate the analysis of the cleaner for users that have limited laboratory test facilities. Request information on this kit from your local Amity representative.

Processing Procedure

The product should be operated at:

- A concentration of between 20 and 50 g/l (2.6 to 6.6 oz/US gal);
- A temperature between 45 °C and 70 °C (113 °F to 158 °F) is preferred.

Application is normally by dip. Allow sufficient contact time, normally 10 to 30 minutes dependant upon the degree and nature of the contaminants, for the cleaner to penetrate, lift and adsorb any soils.

There is no problem with extended solution contact times up to 45 minutes, where particularly difficult soils are encountered. Removal of tenacious deposits can also be assisted by using a cloth, mop or stiff bristle brush.

Components should be rinsed thoroughly following processing prior to drying or proceeding to the next stage of a sequence of wet operations.

CONTACT DETAILS:

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For any further information, please contact your distributor or Amity.

In the event of any technical queries, please contact:

Mr. Ram Singh at the UK/ROW address, above, or by e-mail to:

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Packaging Details:

Orthoclean is available in:

- 25 Litre Containers;
- 210 Litre Drums

Special order provisions apply – minimum order quantity applies
Contact Sales for details