



SPRAYCLEAN™ LNC

Sprayable Anti-Foaming Detergent Cleaner Technical Information Sheet

Description & Application:

Sprayclean LNC is a low alkalinity, non-caustic blend of phosphates with non-ionic surfactants, organic chelating agents and including corrosion inhibitors to give a superior, non-foaming, spray cleaner suitable for all metal surfaces.

The cleaner may be applied by dip, swab or spray processes and is suitable for use within spray cleaning machines, cabinet or tunnel types.

The product is free from sodium compounds and is ultra low foaming at high and low temperatures. The cleaner contains a novel, highly effective corrosion inhibitor that protects parts during cleaning.

Primary features attributable to Sprayclean LNC are:

- Ultra low foaming at high and low temperatures;
- Contains no sodium, thus safe for metal heat treatment applications;
- Suitable for all ferrous and non-ferrous metal substrates, plastics and rubbers,
- Passes sandwich corrosion test.
- Liquid concentrate for easier handling, concentrate is v stable (>2 yrs).
- Free rinsing to leave attractive, bright finish;
- Formulated with maximum concern for the environment, all surfactants, sequestrants and corrosion inhibitors, etc. are fully biodegradable and non-endocrine disrupting.
- Improved product durability and reduced downtime leads to reduced operating costs;

Applications

Sprayclean LNC is highly effective for the removal of soils and surface contaminants from ferrous and non-ferrous metal surfaces and may be safely used where a final water rinse is not available. It can also be safely used at lower temperatures on certain chemically resistant paint surfaces, e.g. epoxy and polyurethane paints, however users should confirm suitability prior to application.

Compatibility

Sprayclean LNC is compatible with most of the major metal alloys, plastics and elastomers used in engineering.



Certificate No. GB06/69741

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Health and Safety

Sprayclean LNC 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.

Sprayclean LNC can however be irritating to eyes and skin and contact should be avoided. See Safety Data Sheet for details.

Typical Properties

Appearance	Clear liquid
pH	12.7 units (Neat soln) 11.8 units (10% soln) 10.5 units (1% soln)
Density @ 20 °C	1.12
Solubility in water	Complete
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 test requirements of Mil-C-29602

Meets test requirements of Boeing D6-17487.

Meets the test requirements of Douglas CSD#1.

Meets the requirements of UK Defence Standard 03-2 Method B1

Process Control

Solution Control:

Static recirculating tanks should be analyzed periodically to determine the concentration of Sprayclean LNC present and additions made to maintain the recommended concentration.

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 Sprayclean LNC (g/L) = Titre x N x 21.2
- Where N = exact normality of the hydrochloric acid.

Note: 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.

Spray cleaning equipment may be controlled by a simple conductivity test that is linked to an automatic dosing pump. Users should consult the spray equipment manufacturers for details on suitable dosing pumps and equipment regulators.

Users should construct a calibration graph of Sprayclean LNC concentration against conductivity using their local water employed in the equipment for dilution.

Using the calibration graph, set the spray washer conductivity control to yield the required concentration by means of the automatic dosing pump.

Processing Procedure

Application Equipment:

Commercial Spray Washing Machines and Tunnel Washing Machines are ideal equipment for use with Sprayclean LNC. Most commercially available equipment is suitable.

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

resistant steel.

All 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.

Operation:

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 50 °C and 90 °C (122 °F to 194 °F) is preferred but lower temperatures may be suitable.

Application is normally by dip or spray. Allow sufficient contact time, normally 15 to 30 minutes, for the cleaner to penetrate, lift and absorb any soils,

There is no problem with extended solution contact times where difficult soils are encountered and removal of any tenacious deposits can be assisted by using a cloth or stiff bristle brush.

Swab application may also be used where localized treatment is required.

Components do not need rinsing following processing, although where available it is good practice that this be used.

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:

Sprayclean LNC is available in:

- 25 Litre Containers;
- 210 Litre Drums.

Approval Data for Sprayclean LNC

Approvals.

Sprayclean LNC has been approved to/by:

WABCO;

Cummins;

Daimler-Chrysler;

Ford;

General Motors;

Sprayclean LNC has also been approved by Loctite as pre-cleaner prior to adhesive bonding.

BAE Systems under Military Aerospace specification R10-6032