

Honeywell

Honeywell International Inc.
21111 N. 19th Avenue
Phoenix, Arizona 85027-2708
U.S.A.
CAGE: 58960
Telephone: 800-601-3099 (Toll Free U.S.A./Canada)
Telephone: 602-365-3099 (International Direct)

Website: <https://aerospace.honeywell.com>

SERVICE INFORMATION LETTER

This document is governed by the terms of the current Honeywell Confidential Notice and Materials License Agreement which can be found by logging into <https://aerospace.honeywell.com> and going to [Honeywell Material License Agreement](#).

A. Subject

ALTERNATE CLEANING SOLUTION USAGE IN FLIGHT DECK

B. Effectivity

- (1) This Service Information Letter is applicable to all Honeywell products installed in aircraft flight decks.

C. Reason

- (1) Due to the outbreak of COVID-19, operators have asked about the compatibility of various cleaning solutions with Honeywell flight deck products. WHO/CDC/EPA/EASA/etc. recommended cleaning solutions were analyzed and/or tested and this SIL documents those results.

NOTE: HONEYWELL MAKES NO CLAIMS TO THE EFFECTIVENESS OF THESE PRODUCTS OR APPLICATION METHODS FOR DISINFECTING HONEYWELL EQUIPMENT, AND ONLY ADDRESSES WHETHER A CLEANER/CHEMICAL COMPOSITION HAS A NEGATIVE IMPACT TO THE HONEYWELL PRODUCT. REFER TO THE AIRCRAFT OEM DOCUMENTATION FOR FURTHER GUIDANCE.

D. References

- (1) To find, see and download Honeywell Technical Publications, go to <https://aerospace.honeywell.com>.
- (2) Publication Number A09-1100-004; Standard Repair Procedures for Honeywell Avionics Equipment Instruction Manual, PN SOPM20-00-03.

E. Summary

- (1) A sample of Honeywell product materials were analyzed/tested to determine which can be negatively affected by these solutions. In total 15 cleaning solutions were analyzed or tested:
 - (a) 70% Ethanol.
 - (b) 6% Hydrogen Peroxide.
 - (c) 0.1% Sodium Hypochlorite.

Honeywell

SERVICE INFORMATION LETTER

This document is governed by the terms of the current Honeywell Confidential Notice and Materials License Agreement which can be found by logging into <https://aerospace.honeywell.com> and going to [Honeywell Material License Agreement](#).

- (d) Ozone.
 - (e) Zip Chem Calla 1452.
 - (f) Sanosil S010.
 - (g) 90% Isopropyl Alcohol.
 - (h) Klercide 70/30 IPA.
 - (i) Netbiokem DSAM.
 - (j) Clorox Wipe.
 - (k) Aerodis 7127.
 - (l) DuroPax.
 - (m) Durokleen.
 - (n) HaloMist.
 - (o) UV-C 254 nm wavelength.
- (2) Assumptions for the analysis consist of the following:
- (a) This cleaning is intended for units installed in the aircraft. Operators should avoid applying excessive amounts of solution to preclude intrusion beyond the front surfaces.
 - (b) Application will be applied after each flight, maximum of 4 times a day. Applications times are based on manufacturer's or WHO/CDC/EPA/EASA guidelines.
 - (c) [Table 1](#) and [Table 2](#) below document the results of the testing/analysis. All solutions are acceptable except for ethanol based products, solutions containing sodium hypochlorite and any Clorox Wipes. Ethanol showed bubbling and flaking on the paint as well as the buttons, and sodium hypochlorite and Clorox Wipes are not recommended for painted surfaces. These are not recommended for use in any cleaning application on Honeywell products.

Table 1. Non-Approved Cleaning Solution Compatibility

Chemical Name	Ingredients	Qualification	Approved
Ethanol	70% Ethanol	Test	Not approved. Paint degradation with continued use.
Sodium Hypochlorite	0.1% Sodium Hypochlorite	Analysis	Not approved. Paint degradation with continued use.

Honeywell

SERVICE INFORMATION LETTER

This document is governed by the terms of the current Honeywell Confidential Notice and Materials License Agreement which can be found by logging into <https://aerospace.honeywell.com> and going to [Honeywell Material License Agreement](#).

Table 1. Non-Approved Cleaning Solution Compatibility (Cont)

Chemical Name	Ingredients	Qualification	Approved
Clorox Wipe	1-5% Ethylene glycol monohexyl ether, n-alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride, n-alkyl (5% C12, 60% C14, 30% C16, 5% C18) dimethyl benzyl ammonium chloride	Analysis	Not approved. Paint degradation with continued use.
DuroPax	0.5% 3-(trihydroxysilyl) propyldimethyloctedecyl ammonium chloride 0.5% Hydrogen Peroxide 49% Inert ingredients	Analysis	Not approved. Paint degradation with continued use.

Table 2. Approved Cleaning Solution Compatibility

Chemical Name	Ingredients	Qualification	Approved
Hydrogen Peroxide	6% Hydrogen Peroxide	Test	Yes
Ozone	100% Ozone	Analysis	Yes
Zip Chem Calla 1452	0.814% Octyl decyl dimethyl ammonium chloride 0.407% Dioctyl dimethyl ammonium chloride 0.407% Didecyl dimethyl ammonium chloride, Alkyl (50% C14, 40% C12, 10% C16) dimethyl 1.085% benzyl ammonium chloride	Test	Yes
Sansosil S010	hydrogen peroxide solution % 5-<8 orthoophosphoric acid 0-<_0.1 Silver 0-<_0.01	Similarity (Hydrogen Peroxide)	Yes
Isopropyl Alcohol	90% Isopropyl Alcohol	Honeywell Publication Number. A09-1100-004, section 12, paragraph E	Yes

Honeywell

SERVICE INFORMATION LETTER

This document is governed by the terms of the current Honeywell Confidential Notice and Materials License Agreement which can be found by logging into <https://aerospace.honeywell.com> and going to [Honeywell Material License Agreement](#).

Table 2. Approved Cleaning Solution Compatibility (Cont)

Chemical Name	Ingredients	Qualification	Approved
Klercide 70/30	60-100% IPA, water	Similarity (Isopropyl Alcohol)	Yes
Netbiokem DSAM	0.1-1% N-(3-aminopropyl)-N-dedecyl-1, 3-propanediamine, water	Analysis	Yes
Aerodis 7127		Similarity (Calla 1452)	Yes
Durokleen	1% 3-(trihydroxy silyl) propyldimethyloctedecyl ammonium chloride 1% Hydrogen Peroxide 1% Alkyl dimethyl / ethyl benzyl ammonium chlorides 97% Inert ingredients	Similarity (Hydrogen Peroxide)	Yes
HaloMist	0-5% Hydrogen Peroxide	Similarity (Hydrogen Peroxide)	Yes
	0-0.01% Silver		
UV-C	254 nm wavelength light and up to 20 J/cm ²	Test	Yes

F. Action

- (1) For purposes of protecting equipment, it is recommended to perform a wipe on application of products found in [Table 2](#) instead of a spray application. This would best be performed by applying the cleaning solution to a lint free cloth and wiping down the surface, allowing it to dry. This will limit the exposure time as well as ensuring that excess solution does not intrude beyond the front surfaces.
- (2) To prevent streaking, Isopropyl Alcohol is recommended for cleaning of the cover glass in accordance with Honeywell Publication Number. A09-1100-004, section 12, paragraph E.
- (3) If any substances which are identified within this service information letter as “Not Approved” are being used or have been used on Honeywell equipment, Honeywell recommends that use of such substances is discontinued immediately to reduce the likelihood of damage to Honeywell equipment, and substances which have been identified as approved are used instead for cleaning. Further, Honeywell recommends that equipment which has been subjected to cleaning with any non-approved substances is inspected for signs of damage or degradation, and that operators ensure there has been no negative impact to the functionality or usability of the equipment. If damage or degradation is present which impacts the functionality or usability of the equipment,

Honeywell

SERVICE INFORMATION LETTER

This document is governed by the terms of the current Honeywell Confidential Notice and Materials License Agreement which can be found by logging into <https://aerospace.honeywell.com> and going to [Honeywell Material License Agreement](#).

Honeywell recommends that any such equipment is repaired or replaced in line with usual/standard maintenance practices.

- (4) Substitute solutions can be used if the operator has the safety data sheet showing that the ingredients and composition (percentages of ingredients) are the same as a solution on the approved list.

G. Contact Information

- (1) The Honeywell Aerospace Technical Support (ATS) team can be contacted for additional information on this service information letter.

Honeywell Aerospace Technical Support
Telephone: 800-601-3099 (Toll Free U.S.A./Canada)
Telephone: 602-365-3099 (International Direct)
Option 1 for Avionics or Option 2 for Mechanical.
E-mail: AeroTechSupport@honeywell.com

H. Summary of Change

This revision is a FULL replacement. This revision includes the changes that follow:

- Updated the number of cleaning solutions analyzed or tested in [Paragraph E.\(1\)](#)
- Added UV-C 254 nm wavelength in [Paragraph E.\(1\)](#)
- Added UV-C details in [Table 2](#).

I. Revision History

This service information letter has had three revision(s) as shown in [Table 3](#).

Table 3. Revision History

Revision Number	Revision Date
0	20 Apr 2020
1	27 Apr 2020
2	20 May 2020
3	30 Sep 2020

Export Control

These items are controlled by the U.S. government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

ECCN: 7E994.