



SGIST 1703

Hybrid passivation for Corrosion Protection
 Alcohol based treatment providing hydro- and oleophobic surface properties with high wear resistance for oxidizing substrates like carbon steel, stainless steel, aluminum, fiberglass and epoxy coated surfaces

TECHNICAL DATASHEET 9701 04/15

- Designed to provide environmental wear protection **PLUS** corrosion / chemical protection
- Easy maintenance with created surface shield – microorganisms (algae) will not be able to attach
- Resists chlorides, acids and bases with excellent repelling and non-stick properties
- Provides a strong, clear, high gloss surface with no risk of delamination
- Protection up to five years **utilizing environmentally neutral chemistry**
- Easy application

Product Description

SGIST 1703 is designed as a surface modifier for oxidizing metals like carbon steel / stainless steel / aluminum surfaces by creating hydrophobic and oleophobic properties. It is also possible to apply to oxidizing organic substrates like epoxy or polyester coatings. Application surfaces for SGIST 1703 would include ID and OD pipe protection, pumps, valves and utility room surfaces in all environments include high humidity, high salt-water or chloride exposure. These properties impair / repel the adhesion of oils, greases, scum and microorganisms and corrosive matter on these surface resulting in reduced corrosion and wear:

- UV-resistant
- Chemical resistant
- Corrosion Protection based on ASTM B117 Salt Fog Testing @ +6,000 hours
- No Organic growth ASTM G21

These properties make surfaces easier to maintain. No abrasive or toxic cleaners will be necessary to clean or maintain the aesthetic or operational need of the surface. This system was designed utilizing silane chemistry along with a highly crosslinked network that will strengthen the surface making it scratch resistant while enhancing “grip ability” (not a slippery surface).

All this is accomplished with the environment and environmental pressures in mind. SGIST 1703 has been designed to be environmental neutrally - no heavy metals, toxins nor harsh solvent are used in the manufacturing of SGIST 1703 that results in negligible VOC emissions for our customers.

Product Information

Color	Clear, colorless
Finish/Sheen	High gloss
Components	2
Volume Solids	98%
VOC	3-6 g/L
Flash Point	77.9 °F / 25.5°C (Pensky-Martens Closed Cup)
Unit Size	300 ml, 600 ml, 1,200 ml, 25kg jugs and 55 gal drums

Application / Drying / Overcoat Information

Method of Application	Wipe, dip, brush, roller or airless spray
Number of coats	1
Dry Film Thickness	Subject to substrate absorption; typical 0.3-0.6 mils
Application Temp	50-95°F (avoid direct sunlight)
Theoretical coverage	9 fl. oz. per 430 SQFT
Dry Time	To touch: 25 minutes Hard: 5 hours Fully reacted: 48 hours
Thinner	DO NOT THIN
Cleaning	Ethyl, methyl alcohol, isopropanol or denatured alcohol



SGIST 1703

Hybrid passivation for Marine Aluminum
Alcohol based treatment providing hydro- and oleophobic surface properties with high wear resistance for oxidizing substrates like carbon steel, stainless steel, aluminum, fiberglass and epoxy coated surfaces

TECHNICAL DATA SHEET 9701 04/15

Surface Preparation

On new surfaces (untreated), the surface should be cleaned prior to treatment with ethyl (denatured) / methyl alcohol or isopropanol to remove all oily substances. Sand blasting or chemical treatment (etching) is not required. **NOTE: If sand blasted, use SGIST 1703 that is specifically designed for sand blasted surfaces.** Make sure the surface to be treated is completely dry. Do not allow water to come in contact with SGIST 1703 before it is dry/hard to handle (approximately 1 to 2 hours). Coating performance is always proportional to the degree of surface preparation. Avoid shortcuts. Inadequate performance will follow inadequate surface preparation.

Application / Systems and Use

Recommended temperature to apply SGIST 1703 is 70-85°F (20-30°C). For best results, use SGM recommended application tools.

Plan your application well. Do all masking and prep-work prior to mixing. Mix base SGIST 1703 and Activator SGIST Act-100 by pouring Activator into Base (both are pre-measured so contents will be contained in Base container). Gently mix for one minute and allow to sit for one minute after mixing prior to use.

SGIST 1703 may be applied by wipe, brush, roller or airless spray. A thin and even wet film should be left on the surface to be absorbed into the surface of the aluminum – aluminum will hold just the amount it can take. On small surfaces, around trimmings and hard to reach areas, the SGIST approved microfiber cloth is the preferred method of application. **HINT: Dip the cloth so that it is soaked but not dripping.** Wipe the surface with soft pressure in an even and systematic pattern leaving a thin, even wet film on the surface – just enough so it does not run off. **NOTE: Overlap application wet-on-wet.**

On larger surfaces, use the SGIST applicator pad with handle. With the handle mounted, dip the applicator pad into the product (using a alcohol resistant paint tray – plastic - as a container). **HINT: Hold it vertically over the tray so the excess fluid runs off.** Swipe the pad with soft pressure in an even and systematic pattern leaving a thin, even wet film on the surface – just enough so it does not run off. Apply in sections from the top to down. **NOTE: Overlap application wet-on-wet.**

Brush application: use a high quality natural bristle brush. **Roll application:** use a high quality, low nap, and solvent resistant roller. Apply uniform and sufficient. A slow, well loaded roll helps to avoid the creation of air-bubbles. **Spray application:** airless spray with 0.015-0.017 tip is recommended. Air spray with moisture and oil trap and a 0.070" fluid orifice.

CAUTION: Do not apply SGIST 1703 in direct sunlight. Direct sunlight or high temperatures should be avoided until the surface is dry to touch; otherwise SGIST 1703 could react too quickly, which will impair its performance. Do not apply SGIST 1703 in rain, heavy fog or in dew, as this will also adversely affect the performance of the product. When not in use, keep the container with SGIST 1703 sealed tight so not to expose it to air and moisture.

Transportation, Storage and Safety Information

Packaging and storage

- Keep containers tightly closed in a cool, dark and well-ventilated place.
- Keep tightly sealed in original packaging.
- Flammable liquids – handle with care.

Safety and handling

Before using, please read the Material Data Safety Sheet, MSDS, thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use.

Limited warranty information – Please read carefully

The information contained herein is based on SG Industrial Surface Treatment's (SGIST) present knowledge and experience, it is believed to be accurate and is offered in good faith. However, because conditions and methods of use of our products are beyond our control this information should not be used in substitution for customer's tests to ensure that our products are safe, effective and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent. SGIST's sole warranty is that our products will meet the sales specification in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund purchase price of replacement of any product shown to be other than as warranted. SGIST specifically disclaims any other express or implied warranty of fitness for a particular purpose (even if SGIST is aware of such purpose) or merchantability. SGIST disclaims liability for any incidental or consequential damages (including loss of profits) of any kind.

SGIST reserves the right to make any changes to technological progress or further developments. These are starting point formulations and are not proven for use in the user's particular application, but are simply meant to assist in the development of the user's own formulations. It is the user's responsibility to fully test and qualify the formulation, along with the ingredients, methods, applications, or equipment identified herein ("Information"), by the user's knowledgeable formulator or scientist, and to determine the appropriate use conditions and legal restrictions, prior to use of any Information. Furthermore SGIST cannot assume any responsibility for patent infringements, which might result from the use of any Information.

May only be sold/distributed by an SGIST approved and certified representative.