

Approvals and conformities

BELL HELICOPTER	Approved for Edwards & Associates Inc. (Piney Flats)
BOEING	HMS20-1267QPL
BOEING (HELICOPTERS, MESA)	US Army Apache Helicopter
BOMBARDIER	NTO CRJ-700 EA 05-2011-049, All Bombardier aircraft at Midcoast Aviation - RIL GX-0051
DASSAULT AVIATION	Approved for all Falcon Aircraft
DELTA AIRLINES	Process Standard 900-3-6 No 36
EMBRAER	NTO ERJ-145 05-2011-047
GULFSTREAM	GMS 5008, GAR 110VK
NSN	6850015493632
OTAN/NATO	6850-01-513-8589 (1 quart), 6850-01-513-8586 (1 gallon), 6850-01-513-8567 (5-gallon pail), 6850-01-513-8560 (55- gallon drum), 6850-01-549-3632 (275-gallon tote), 6850-01-505-8688 (Large repair kit), 6850-01-602-6830 (50 wipes with canister), 6850-01-602-6827 (50 wipes, no canister)
SAAB	NTO 340B 05-2011-050
SAE	Conforms to AMS 3095 (as a pretreatment)
SOUTHWEST AIRLINES	EA 1-A11-0075 referencing spec G51-21-01
UNITED AIRLINES	M&E 40-0608-3-0475 / 40-609-3-0312, Product code: CHE 3101-2
US Air Force	TO 1-1-8
US Air Force	US Air Force Airframes: Lockheed Martin C-130 Hercules, F-16 Fighting Falcon, C-5 Galaxy, F-117 Nighthawk, KC-10 Extender
US Air Force	Boeing KC-135 Stratotanker, B52 Stratofortress, E-3 Sentry, B-1 Lancer, C-17 Globemaster, A-10 Warthog
USA Department of Defense	MIL PRF 32239 QPL

PreKote® is a ready to use pretreatment solution to clean, deoxidize (by scrubbing) and improve adhesion properties on metal and composite substrates before painting or bonding.

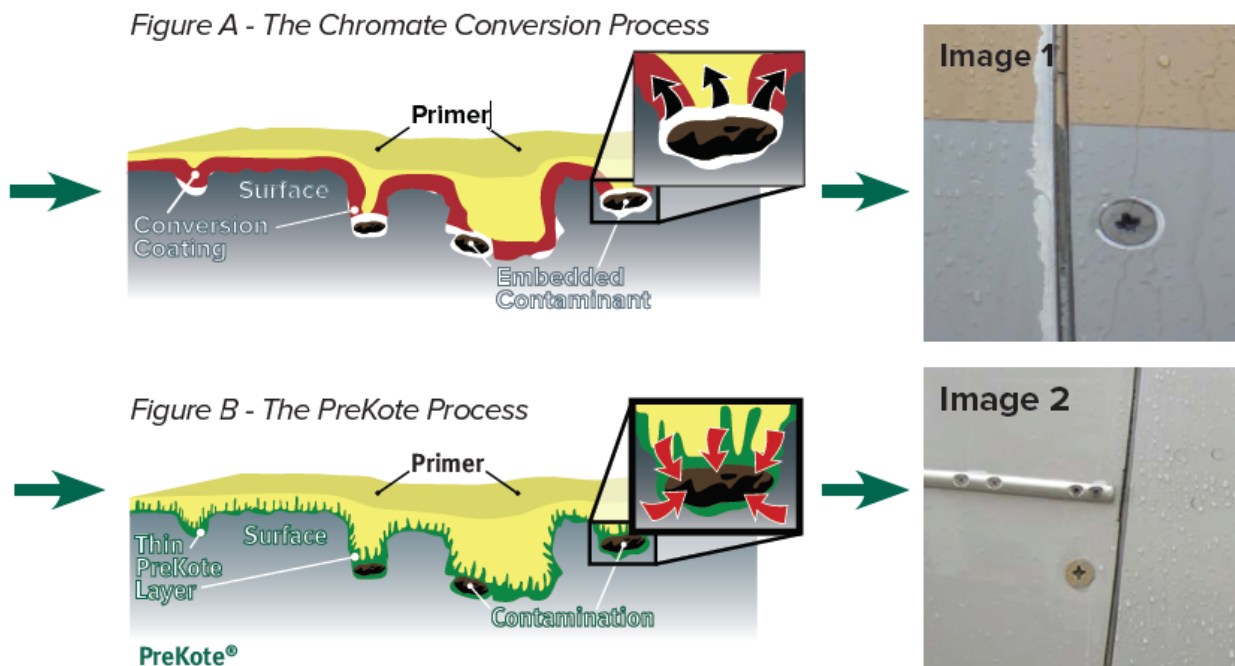
Advantages / Benefits

- Reduce processing time with an all-in-one cleaning and adhesion promoting surface pretreatment
- Replaces both chromate and non-chromate conversion coatings prior to painting
- Flexible surface pretreatment: works with virtually any paint or bonding process

Paintable surfaces have millions of microscopic pores where dirt and contaminants become embedded. Over time, these microscopic contaminants become incredibly difficult to remove, and can actually block adhesion of primers and paint to the aircraft's surface when processes such as chromate conversion are used. (See Figure A). This can lead to paint failures such as chipping, peeling, blistering, and out-gassing (See Image 1).

PreKote's technology cleans the surface, and removes contaminants by creating a closer, stronger bond between the surface and coating (See Figure B). This results in fewer paint adhesion failures and better overall corrosion protection (See Image 2).

About the photos to the right: To compare the pretreatment process, a leading commercial airline treated one 737-800 with PreKote and another 737-800 with a chromate conversion coating. When the aircraft returned for a 24-month inspection, the airline declared PreKote provided superior protection and out-performed the chromate conversion coating.



PreKote® does not contain chrome and is non-toxic, non-hazardous, non-flammable, non-corrosive, CFC free, odor free, non-ozone depleting, and the liquid is also readily biodegradable upon disposal. As **PreKote**® is non-hazardous, users can reduce HAZMAT shipping and storage charges. The product requires less rinsing, reducing water consumption.

The US Environmental Protection Agency (EPA) found **PreKote**® to have environmentally preferable chemistry. **PreKote**® has been recognized with the Design for the Environment (DfE) award. The EPA has also determined that **PreKote**® is not one of the six core metal finishing

effluent operations and does not trigger categorical industrial user (CIU) status.

USES

Works on any paintable or prepainted surface:

- Aluminum
- Anodized
- Composite
- Galvanized
- Magnesium
- Plastic
- Scuff-sanded
- Steel
- Titanium

DIRECTIONS FOR USE

PreKote® can be used on any paintable or painted surface of any size. It can be applied by the following methods:

- Manual application
- Spray application
- Power wash
- Immersion applications
- Touch-up applications (liquid or wipes)

Concentration

PreKote® is used at full concentration for most applications.

Pre-Application

Before Applying PreKote®:

- Strip and clean the aircraft in accordance with standard operating procedures. SOCOSTRIP paint strippers along with DIESTONE and SYNCLAIR cleaners are suitable for use. High soil areas such as the bottom of aircraft engines and fuel access panels may require extra work to ensure a clean surface.
- Thoroughly rinse the aircraft, or wipe off, to remove all dust and debris.
- Mask all areas that will not be treated.

Workflow Recommendations When Applying PreKote

- Work from the tail section forward: always begin on the top and outboard of the aircraft, working in and down.
- Work in small sections; horizontal surfaces will allow for larger work areas than vertical areas; the top of the vertical stabilizer will require a smaller work area.
- Pay particular attention to leading edges and high erosion areas.

- Take special care when working on high erosion areas just aft of leading edges on wings and engines, radome, the vertical stabilizer, and aft of cockpit windows.

The PreKote® Manual Application Process

Tools & Materials Needed

- PreKote® liquid.
- Aluminum oxide pads. Commercial/ GA: 280-400 grit aluminum oxide pads (3M Scotch-Brite P/N 7447, Maroon / MILITARY: A-A-58054, Type 1, Grade A). *Important: Use only aluminum oxide pads to scrub surface. Use of any other pad may contaminate the surface and prevent adhesion of primer.*
- Spray gun. Spray gun tip should be approximately .065" - .071".
- Municipal water.
- Optional: pole scrubber or pneumatic sander. Pole scrubbing is recommended; however, pneumatic sanders can be used.

Process

1. Apply a flood coat of PreKote® to the designated area.
2. Agitate surface area with an aluminum oxide pad using OVERLAPPING HORIZONTAL motions until you see a rich lather. Never let PreKote dry on the surface. If work area does dry reapply PreKote.
3. In same area just treated, apply a second application of PreKote. The second application is necessary in order to remove all the soil and contaminants lifted by the first application. Do not rinse between applications.
4. Re-agitate surface with an aluminum oxide pad, this time using OVERLAPPING VERTICAL motions until you see a rich later. Do not allow PreKote to dry on the surface.
5. Immediately following the second PreKote application, rinse the completed area thoroughly from top down. When rinsing, pay special attention to seams and depressions to ensure thorough removal of PreKote.
6. Look for a water break-free surface as an indicator of proper application (typically 2-10 seconds). If water beads or breaks immediately, repeat PreKote process.

Repeat steps 1-6 for the remaining sections of the plane.

Prime or paint the surface within 24 hours of PreKote application.

Post Application

- Remove all masking and perform a final rinse. DO NOT USE SOLVENT WIPES after applying PreKote.
- Allow surfaces to static or hot air dry. There should be no visual evidence of a wax-like appearance on the surface. If there is a wax-like film, reapply PreKote as per steps 1 and 2 above.
- Inspect all areas previously masked to prevent intrusion of chemicals used for surface preparation and to ensure chemicals have NOT entered any cavities.
- Prior to priming, if there is dust on the surface use a water dampened, lint-free cloth to remove it. If fuels and oils are on the surface, moisten a lint-free cloth with PreKote and wipe

fluid off in one direction so as not to smear the contaminant. In the same direction, immediately wipe excess PreKote off with a dry lint-free cloth and prime immediately.

The PreKote Wipe Application Process

For Painted, Prepped and Non-Oxidized Substrates

1. Wipe surface.
 - **Important:** Only wipe in one direction to maximize removal of contaminants and ensure a clean surface. Wiping back and forth or in circles may lesson soil removal and/or further embed contaminants.
 - Use minimal and uniform pressure on the wipe during the application process.
 - Each wipe covers 4 sq. ft. (0.4 sqm) of surface.
 - PreKote® wipes should only be damp to the touch. Never add liquid PreKote to the wipes.
 - Wipe may be folded and used multiple times as long as a clean side of the wipe is used on each pass.
2. Allow surface to dry before applying coating, stain or sealant. Forced hot air drying is acceptable as long as the air is filtered and free of particulates. Once dry, it is ready for paint.
3. Prime or paint surface within 24 hours of PreKote application.

For Oxidized Substrates or Composites

Note: PreKote® wipes will provide adhesion promotion without a wet abrade step; however, for best results, scarification and oxide removal (wet abrasion) is recommended.

1. Clean surface with PreKote wipes.
 - **Important:** Only wipe in one direction to maximize removal of contaminants and ensure a clean surface. Wiping back and forth or in circles may lesson soil removal and/or further embed contaminants.
 - Use minimal and uniform pressure on the wipe during the application process.
 - Each wipe covers 4 sq. ft. (0.4 sqm) of surface.
 - PreKote wipes should only be damp to the touch. Never add liquid PreKote to the wipes.
 - Wipe may be folded and used multiple times as long as a clean side of the wipe is used on each pass.
2. Wet abrade surface with an aluminum oxide pad (3M Scotch-Brite 7447) or pneumatic sander.
3. With a damp microfiber towel, wipe up oxides. If only a small amount of oxides is present, this step may be skipped and oxides may be wiped up with a PreKote wipe. This will, however, cause the wipes to soil faster.
4. Wipe substrate several times in one direction with a PreKote wipe.
5. Allow surface to dry before applying coatings or sealants. Forced hot air drying is acceptable as long as the air is filtered and free of particulates. Once dry, it is ready for paint.
6. Prime or paint surface within 24 hours of PreKote application.

TECHNICAL CHARACTERISTICS

PreKote has passed all traditional testing for pretreatments.

Test description	Test name	Results
Salt spray	BMS 10-72, Test #20a ASTM B117	Pass
Filliform corrosion	BMS 10-72, Test #20b	Pass
Rain erosion	BMS 10-72, Test #23	Pass
Flexibility	ASTM D4145 (passes 1/8" Mandrel Bend Test)	Pass
Wet Tape Adhesion	BMS 10-72, Test 16	Pass
Corrosion resistance	ASTM G85 Annex 4	Pass
Hydrogen Embrittlement	ASTM F519-97	Pass
Paint Softening	BMS D6-17487 ASTM F502	Pass
Humidity Resistance	BMS 10-11, Test 24.8.2.16	Pass

Boiling point	219°F (104°C)
Freezing point	28°F (-2°C)
pH	10.0-11.5
VOC (US regulation)	65.5 g/L
Evaporation rate (NFT 30301) (n-Butyl acetate=1)	Less Than Water
Specific gravity	1.01 at 25°C
Vapour pressure	0.02mm Hg at 20°C
Vapour density	1
Water miscibility	100%
Biodegradability	+90% in 28 days
Appearance	Clear Amber Liquid
Odor	Odorless
Rinseability with water	No Visual Residual
Application temperature	40-110°F (4-43°C)
Application Humidity	0-100%

PRECAUTIONS FOR USE AND STORAGE

Liquid Shelf Life

- Store in original closed packaging at 40-100°F (4.4-37.7°C).
- Unopened: 36 months from the date of manufacture.
- Open: 12 months. Seal container when not in use.

Wipe Shelf Life

- Store in original closed packaging at 40-100°F (4.4-37.7°C).
- Unopened: 12 Months from the date of manufacture.
- Open: 90 days. Seal container when not in use.

For more information regarding the danger of the product, please consult the product safety data

sheet according to local regulation.

In confined spaces, appropriate ventilation and personal protective equipment are recommended.
For professional use only.

This technical data sheet replaces and cancels the previous one.

The above details have been compiled to the best of our knowledge. They have, however, an indicative value only and we therefore make no warranties and assume no liability in connection with any use of this information, particularly if a third party's rights are affected by the use of our products. The above information has been compiled based upon tests carried out by SOCOMORE. All data is subject to change as Socomore deems appropriate. The data given is not intended to substitute for any testing you must conduct in order to determine the suitability of the product for your particular purposes. Please check your local legislation applicable to the use of this product. Should you need any further information please contact us.