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Sanchem Inc

NO-OX-ID A-SPECIAL

Electrical Grade

A RoHS Compliant coating for electrical installations

NO-OX-ID is designed to be used on electrical contacts between metal surfaces, especially between dissimilar metals that can be rapidly compromised in the presence of oxygen, water, salts, pollutants, and other oxidizing agents.

NO-OX-ID "A-SPECIAL" is the electrical contact grease of choice in new RoHS Compliant electrical installations and maintenance because of its excellent performance in keeping metals free from corrosion. This electrical grease has been used for over 65 years to prevent corrosion in electrical connectors from low micro-power electronics to high voltage switchgear. This conductive grease prevents the formation of oxides, sulfides and other corrosion deposits on copper and aluminum surfaces and conductors can be prevented with its use.

NO-OX-ID A-SpeciaL-8 oz can w/brush

NO-OX-ID A-SpeciaL-8 oz tube

The purpose of a electrical contact lubricant is to prevent corrosion and lubricate the connection for easier maintenance. NO-OX-ID "A-Special" electrical grease prevents corrosion attack on all metal surfaces. Attack can come from battery acid, salt, moisture and various industrial chemical vapors in the environment. When this conductive paste is used on aluminum connectors in joints, NO-OX-ID "A-Special" prevents the reformation of oxide films, which cause high resistance and subsequent failures.

NO-OX-ID A-Special conductive grease is recommended by connector manufacturers for trouble-free joint connections. When nuts, mounting bolts, and cotter keys are coated with NO-OX-ID "A-Special", they will never rust or freeze assuring you easy, trouble-free removal. NO-OX-ID "A-Special" should be used wherever the formation of a corrosive product will effect the proper functioning of the metal surface. This electrical contact grease is easily applied, easily removed, and gives long lasting reliable performance even on dissimilar metals.

WHY DON'T YOU KNOW ABOUT NO-OX-ID

NO-OX-ID is the best-kept secret in the electrical industry and it has essential applications in the automotive, trucking and boating world too. It is an anti-oxidation compound (a conductive grease substance) that electricians use on electrical connections, as well as conduit connections, and other places where copper and/or aluminum join, which are exposed to the elements and need lasting protection.

NO-OX-ID A-Special prevents corrosion and keeps resistance in the connection low which translates directly into a cooler more efficient and reliable connection, especially in high current applications like your battery posts, alternator terminals, high output headlight/driving light wiring, high watt stereos, winches, etc., which means brighter lights, louder stereo, even longer winching times, because you are not wasting power through a poor connector.


Photo courtesy Aluminum Company of America

APPLICATION
NO-OX-ID "A-Special" is applied as it comes from the container, using a brush or rag. NO-OX-ID "A-Special" should rubbed onto the metal thoroughly to absorb all moisture and to insure coverage of all irregularities on the surface. Coating thickness depends on the extent to which areas are exposed to the corrosive influence.

SPECIFIC USES

- Aerial cable
- Aluminum cable
- Anchor rods
- Battery holders
- Battery terminals
- Battery posts
- Boot jack contacts
- Bolted connections
- Brackets
- Bus Bar systems
- Cables & clamps
- Connectors
- Contact points
- Electrical conduit
- Guy wires
- High line towers
- Insulators
- Junction boxes
- Manhole hardware
- Nuts & bolts
- Steel conduits
- Steel fittings
- Steel poles
- Switchgear
- Temper screws
- Threaded connections
- Transformer Bases
- Turnbuckles
- Wires
- Circuit Breaker
- Switches
- Drawout Breakers

TRUCK, AUTOMOTIVE AND MARINE ELECTRICAL SYSTEM MAINTENANCE

- Apply a thin coat of this electrically conductive grease to mini-lamp bases before inserting into sockets.
- Apply to base of lamp socket and lens contact area.
- Apply to all electrical conduit connections by packing the end of the tubing and nut before connecting to box connection.
- Apply to all wire terminal connections and wire splice connections. Dip the spade or ring into the NO-OX-ID
- Apply to all electrical junction box connections or terminal posts in light system, starter cable connections, alternator terminal connections, battery posts connectors and ground connections.
- Apply a thin coat of this electrically conductive lubricant to 7-way trailer plug connections and VW cable connector.
- Use NO-OX-ID A-Special as a battery terminal grease to prevent battery corrosion for **both** your car battery maintenance and marine battery maintenance. For battery connections coat the post, screw, clamp, terminal liberally with NO-OX-ID. A little NO-OX-ID goes a long way!

SPECIFIC ALUMINUM CABLE APPLICATION

When splicing aluminum cable with compression-type connectors, brush NO-OX-ID A-Special to the inside surfaces of the connector. Using a wire brush, brush these inside surfaces through the through the A-Special coating. This roughs up the surface assuring positive contact. At the same time the NO-OX-ID A-Special is providing protection against the oxide film, that can occur in the short space of time between roughing up the surface and final connection. Apply a thin coat of NO-OX-ID A-Special to cable ends to complete the splice to prevent aluminum rust.

NO-OX-ID A-Special is your coating of choice for Battery Terminal Connections. NO-OX-ID is not a grease that can be washed off and breakdown in the presence of water or acid, it is a moisture and corrosion resistant rust preventive compound.

Why should you use NO-OX-ID A-Special on your battery terminals? NO-OX-ID prevents the premature death of your battery by preventing the white corrosion material from forming on the posts. When this white corrosion appears on your battery terminals it exponentially reduces the charge to the battery and from the battery to your engine. This excessive corrosion resistance formation will shorten your battery life. To insure good starts throughout the year, the condition of your battery posts (keeping them free of corrosion) is as important as changing your cars oil.

Battery corrosion is a serious business, which is why most major industrial companies recommend the use of NO-OX-ID on backup battery systems and critical electrical connections. Industrial battery companies prefer NO-OX-ID for field applications because they can not afford to replace a battery cells due to overheating and failure due to corrosion and neither can you!

Battery terminal application of NO-OX-ID A-Special:

1. Disconnect the connector from the terminal. When taking the battery out first disconnect the negative terminal (-), then disconnect the positive (+).
2. Degrease the terminal post.
3. Neutralize the area – this is normally done with baking soda & water (1 lb/ 1 gal.)
4. Use a toothpick size steel wire brush to buff the face of the terminal post until the face is bright lead.
5. Next, apply a light coating of NO-OX-ID A-Special to all four faces of the terminal post.
6. Reattach the cables to the battery. When reattaching the battery, first connect the positive (+) connection then reattach the negative terminal (-).

Stereo enthusiasts and hobbyists love NO-OX-ID… BECAUSE IT WORKS!

How they use NO-OXID A-Special: "The mating surfaces of the connection shall be burnished to a bright metallic finish and coated with a thin layer of *NO-OX-ID*

anticorrosion paste to **...**

1. NO-OXID A-Special works absolute wonders on audio connections, especially on those pesky RCA connectors that tend to corrode on the inner surfaces of the ground shell, 1/4 phone and even USB connectors
2. Telephones – The telephone company has been using NO-OX-ID for seventy years. I have seen fifty-year-old NO-OX-ID on connectors that I've disassembled and the stuff is still goopy and the connections are still bright and shiny as the day they were made.
3. Tinning stranded wires destined for mechanical compression-type connectors defeats the purpose of the mechanical compression. When you insert a set of bare copper wires that are clean and protected with stuff like NO-OX-ID into a speaker thread-type compression connector, the resultant force of the compression on all the strands is what makes a good connection.
4. A quote from a Bell Systems manual on making a connection: "The mating surfaces of the connection shall be burnished to a bright metallic finish and coated with a thin layer of NO-OX-ID anticorrosion paste to preserve continuity indefinitely."
5. One public utility states on its purchase orders: This material is used in making aluminum to aluminum connections on outdoor High-Voltage Switchgear. PSO has tested dozens of joint compounds and none are equal to the SANCHEM NO-OX-ID. Please procure this brand!
6. NO-OX-ID is a great product a must for any grounding application.
7. One major engineering company recommends the use of NO-OX-ID on Track & Positioning pins on 480 volt drawout breakers (Circuit Breakers).
8. Electronics AF and RF - Electronics, both AF and RF, have been my employer and hobby since 1963. NO-OX-ID preserves the conductive finish. I use it on all AF and low frequency (Below 30MHz) RF connectors and have never had a glitch because of its presence. The ideal amount of NO-OX-ID to use is one molecule thick. No gobs. If a person takes care to wipe off excess with a clean paper towel the residue, barely seen, even, is plenty enough to forestall corrosion. I even use the stuff on gold-plated edge connectors on circuit cards. I own an old Yamaha DSP-A100 integrated 5.1 rig that Circuit City sold for $50.00 because after it sat around being demo'd the interior flat ribbon cable connections corroded and the amp lost its snot, so to speak. It took fifty hours of repairs, taking it completely apart and burnishing the non-soldered connections, but it worked. (I attended the Panasonic Technical schools for Digital Electronic, Broadcast and Computer Repair and that's where I learned of the built-in obsolescence that non-soldered connections afford.) Even the expensive microprocessor chips that plug in to receptacles decline in conductivity over time, except when protected by NO-OX-ID, so as soon as I purchase a piece of equipment I yank it apart and goop up the non-solderables 'cause I know they're ticking bombs.
9. **Model Railroad Tracks:** Gary is a Model Railroad Train enthusiast: I applied the NO-OX-ID to my layout 4 years ago, and have experienced skip free running ever since. This is even after periods of no running for as long as a month. I HAVE NOT CLEANED MY TRACK IN 4 YEARS! An added bonus is that the

NO-OX-ID has changed my loco wheels into better conductors, as I have not had to clean them either. .

This is Gary's application method for NO-OX-ID "A SPECIAL" for Model Railroad Tracks. NO-OX-ID's corrosion inhibitor system prevents the formation of oxides. Typical greases can not use this inhibitor system because it would break down the greases gel formation. The product is not an oxidant. NO-OX-ID penetrates into the metal surface of the rail.

If you have gunked up your track with plaster, glue, or oil, you should remove any of these contaminants prior to NO-OX-ID application. The method of applying NO-OX-ID to rails is as follows:

1. Use a mild abrasive such as fine sandpaper or a brite boy on all rails to remove any oxidation.
2. Wipe all rails with a rag and alcohol to remove any dirt and fine particles.
3. Vacuum all rails to ensure cleanliness.
4. Put very thin smears on your finger and rub it on your rails. The total amount of NO-OX-ID "A SPECIAL" that should be applied to 500' of N scale track is about ¼ teaspoon.
5. Run all your locomotives (no rolling stock yet) over your entire track. You may notice some wheel slippage, but this ensures that all wheels get treated with NO-OX-ID
6. Remove all locomotives from track and wipe all rails with a clean rag to remove any excess product. Don't scrub, just
7. Wait 24 hours.
8. Run trains and forget about cleaning your track except for occasional light vacuuming.

If you still have a slippage problem, you may have too much on loco wheels. Clean off excess with a clean rag or Q-tip.

Other Model Railroad Testimonials:

Gary has been touting the NO-OX-ID for a barrier to dirt/oxidation on rail for a while. He sent me a bit of it a few months back and I've just been able to use it now. WOW, Great stuff. I used my bright boy to clean the track well, and ran trains a bit. No issues with any of the atlas or kato locos on the mains. Then I put the NO-OX-ID down. Just the tiniest amount rubbed on the rail. Not sure how to describe it. My rail head was smooth to the touch. As I put the NO-OX-ID on, I basically took finger tip, touched the no ox, and then rubbed it off on the container lid. So I had a very thin film on my finger. I then rubbed on the rail back and forth till the rail still felt smooth, but not "slick".

Ran trains on the mains, and if it's possible to say they ran better, when there were no issues before I'd have to say yes.

NOW, I also put it on an 11" radius circle of track I will run my shay on. The shay is really light weight, and didn't run on the track too well with it freshly cleaned. It ran, but was a tad jerky. Put down the no ox the same way as outlined above, and the Shay really ran much better.

So there's a big thumbs up for no ox. I will put it on the garden rail when I get it, and will report back then. Gut feel, this will be a really good application for the stuff, as oxidation outside is so much more of a problem. I will also use it on the loco wheels.

Steve

I have my layout in the garage and also applied NO-OX and the trains run great. **Duff**

Just thought I would add to Gary ’s NO-OX-ID "test" thread. Even though the stall tracks inside the roundhouse don't get the dust that open tracks get, I have had engines stall sitting inside the RH with every RH/TT module that I have ever built (several in HO and one in O scale). But I have not had the RH off of its foundation since the NO-OX application well over a year ago, the reason? No need to, the engines crawl in and out without problems. **RWC**

Gary posted information about a compound named NO-OX-ID. As a result of the time-honored process of bartering, he sent some of the product to me. With the results that I have had, felt that an update on this stuff needed to be posted.
NO-OX-ID is a commercial product made for electrical circuits. Any copper/brass (and despite its name, nickel-silver is mostly brass) surface starts to oxidize as soon as it’s exposed to air. This oxide has a high electrical resistance, which causes model railroaders to break out the track cleaning gear.
NO-OX-ID works in a different manner than a track "cleaner". Instead of cleaning, it combines with the copper surface to create an oxide that has a much lower resistance than normal copper oxide. The goop has to be applied in an oh-so-thin coating on track or else there is a great loss of traction.
As Gary stated, once applied the coating lasts literally years. If applied to previously cleaned rails, rail cleaning can be reduced to wiping the dust off the rails....BUT I have found a very very neat other use for It. The product is produced for coating contact surfaces, and the hinge joints between turnout points and the diverging rails and the contact attached to the throwbar of Peco turnouts that mates with the stock rails ARE contact points !!!!
Folks this stuff is most excellent in that use. I had a couple of turnouts that were "balky" with intermittent contact in the middle of the yard switching lead. NO MORE!
This is not a new product, it’s been out so long that the MR review for it was written by Linn Wescott But the additional use in turnouts makes this worth mentioning again. **RWC**

I am here to tell you that this stuff works and a little of it goes a long way. No more tearing up the track with things that gouge into the track metal....put this stuff on and run your trains and run, run, run, run, run, run, run, run and run. **Carl**

Thanks! This stuff is wonderful. I put it on all my track a while back and I got it on a little thick, I guess, 'cause I had my normal trouble with stalling. I then ran my CMX with lacquer thinner on all the track and ever since, WOW! I was afraid the lacquer thinner might remove all the NO-OX-ID, but it seems to have helped spread it out evenly in a thin layer. I haven’t had to clean track in almost a month. (It was a daily occurrence and a real pain to clean track before.) I've found as long as I run a train over the track every day, I don't need to clean it (however my layout is in a dirty environment - a wooden shed in the back yard which is basically sand, and we have a lot of wind up here

in the high desert in So Cal.) NO-OX-ID is really great because there was no way I could run trains without cleaning the track - even after 24 hours of not running - before I applied the NO-OX-ID. **Tom**

As mentioned by Gary , the NO-OX-ID creates a great surface for electrical contact. I have had it on the track for about two months now, and the only track cleaning that I do, is to take a rag to wipe the dust off the rail tops before each weekends operation. Also, since getting back into N scale this time, I have only a small fleet of rolling stock. Have made a point of not adding any cars to the layout unless they had MT couplers and metal wheels. Metal wheels really highlight any grime buildup on the tread. In two months of running, so far the wheels of rolling stock and engines are staying clean. **RWC**

Fallacy **of adding metals to increase Conductivity:**
Many contact greases have copper, zinc or other metals blended into a grease to increase conductivity. In a study for an aerospace company in 1985 it was concluded that putting a metal into grease does not help conductivity. In many cases it reduces conductivity. The *United States Department of the Interior Bureau of Reclamation in their Facilities instruction Journal Volume 3-3 Electrical Connections for power circuits states in Sec. 6.3.2* that "Use of grease with embedded zinc particles will cause a poorer connection due to the lower conductivity of zinc".

Aluminum Oxide is one of the hardest substances known to man, just softer than diamonds. How can a metal as soft as Zinc cut through it? It can't! Zinc metal can not dissolve aluminum oxide either. The aluminum oxide that typically forms on an aluminum connection is only 50-120 angstroms thick. Sanchem's NO-OX-ID penetrates the oxide film by the chemical action of our corrosion inhibitor system.

NO-OX-ID A-Special Electrical is an USDA approved conductive grease compound and rust preventive that prevent corrosion and lubricates electrical connections. Other NO-OX-ID electrically conductive grease and conductive lubricants include NO-OX-ID "A", NO-OX-ID "A-Special 200" and NO-OX-ID "E".

Toxicity: All NO-OX-ID products are produced from pure virgin clean raw materials and are RoHS compliant. That is why NO-OX-ID A-Special has received health certification from the EPA under NSF-Std 61 for use in drinking water tanks and is USDA approved as an electrical contact grease and general lubricant for meat & poultry plants.

Your electrical connections need a rust preventive electrical grease that is a conductive lubricant to prevent rust and corrosion from causing a costly terminal grease connection failure.

NO-OX-ID has been preventing corrosion since 1918.

You need NO-OX-ID!
Call Sanchem Inc @ 312-733-6100


NO-OX-ID
IRON + OX = RUST
REG. TRADE MARK
The Original Rust Preventive