ANS TRICOLIT®

NEW OFFER

ANS is proud to offer our innovative graphene-fortified low friction coating Tricolit®-GO, now also available in easy to apply spray cans!

Tricolit GO coating features low friction and high abrasion resistance, and can be supplied in bulk for professional use and in easy-to-use spray cans for DIY enthusiasts. The Tricolit GO! coating comes in a convenient semi-gloss black color.

Tricolit®-GO! has been developed within the strategic innovation program supporting the industrial graphene development in Sweden, SIO Grafen. The program is supported by the Swedish government agencies Vinnova, Energimyndigheten and Formas.

Tricolit®-GO! is available for 100 Euro per can. It's a time-limited offer.

If you would like to order please send an e-mail to order@appliednanosurfaces.com

ANS Tricolit® is a series of thermoset surface coatings serving to reduce friction and wear. Tricolit coatings can be applied by spraying, dipping or brushing and are suitable for treatment of non-ferrous materials which cannot be triboconditioned. The coating gives the component great tribological performance at a competitive price. Some beneficial characteristics are:

- Cured film thickness from 5 to 100 um
- Water-based formulations = zero VOC emissions
- Work both in dry and lubricated contacts

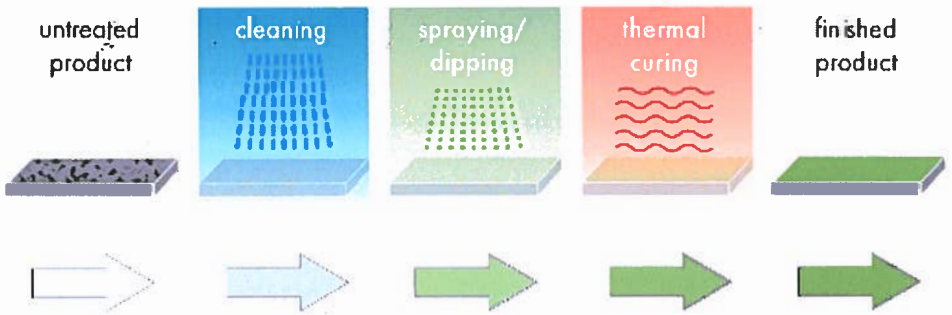
How it is done

ANS Tricolit® is applied to the surface like a regular paint and heat-cured afterwards. The resulting coating comprises a balanced set of friction modifiers, such as WS2, BN, PTFE, and graphite, embedded in a cross-linked organic polymer matrix.

CONTACT US

+46 70 738 48 49
Send email to Christian
Christian Kolar, Sales Director

+46 70 937 13 10
Send email to Boris
Boris Zhmud, CTO



Tribological effect

- Friction and wear reduction
- Stick-slip reduction
- Seizure prevention
- Micropitting reduction
- Corrosion protection

Application areas

ANS Tricolit® coatings are used for improving tribological properties of various parts (e.g. guide bars, rails, slideways) in those cases where use of Triboconditioning® is not feasible (e.g. because of complex geometry, chemical incompatibility, inappropriate mechanical properties). The coatings are also suitable for servicing of parts which have already been in use.

PRODUCT DATA SHEET

Specialty Coating

Tricolit® GO

Applied Nano Surfaces

FEATURES

- Water-borne one-component coating
- VOC-free formulation
- Environmentally friendly
- Low coefficient of friction
- Good wear-resistance

COMPOSITION

- Organic binder
- Graphene filler
- Additives
- Water

Typical properties:*

Appearance	Dark grey liquid
Density at 20°C (DIN53217/2)	1.07 g cm^{-3}
Nonvolatile content (CTM 0242 I)	27.8 %
pH at 20°C (CTM 0007 A)	8.5-9.0
Storage life (ambient temp 5-35°C)	6 months

**NOTE: These properties are not intended for use in product specifications.*

HOW TO USE

Surface preparation

Adequate surface preparation is critical for adhesion of the coating to the substrate. Always degrease the surface prior to coating. Suitable degreasing methods include solvent and vapor degreasing. Sandblasting (180 grid) further increases the adhesion and service life of the coating.

Application

Stir the product well before applying by spraying. Spray uniformly. Recommended dry film thickness of 10 to 15 um.

Curing

(1) Drying at room temperature for 30-60 min
(2) Precuring at 50°C for 30 min;
(3) Curing at 250°C for 60 min.

Thinning

Use of deionized water for thinning is recommended as needed.

HANDLING PRECAUTIONS
For product safety information, please refer to the product safety datasheets.

PACKAGING
The product is available in different standard container sizes.

LIMITATIONS
This product has not been tested nor certified for use in direct food contact.

SAFETY DATA SHEET

Tricolit® GO

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Product name: Tricolit® GO **Emergency Telephone Number: +46 70 9371310**
Product type: Surface coating formulation

Company/Undertaking: Applied Nano Surfaces Sweden AB
Knivstagatan 12, SE-75323 Uppsala, Sweden

Chemical Family:
Coating formulation, mixture

Chemical name:
Not available

Product Appearance & Odor:
Black liquid, characteristic odor

CAS Number: n/a
Complex mixture (water, graphene, binder and proprietary additives)

Synonyms: n/a

2 - COMPOSITION/INFOMATION ON INGREDIENTS

Water, 7732-18-5, > 70%; graphene, 1034343-98-0 7782-42-5; < 5%; Phenoxy resin 25068-38-6, 5-25%; Proprietary additives.

3 - HAZARDS IDENTIFICATION

Most important hazards: MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. AVOID CONTACT WITH EYES AND SKIN.
Symbol(s): Not applicable
Product classification: Not applicable
This product is NOT classified as dangerous according to Directive 1999/45/EC and its amendments.

4 - FIRST AID MEASURES

Eye contact	Eye contact: check for and remove any contact lenses. Flush with plenty of water for ca 15 minutes. Get medical attention if symptoms occur.
Skin contact	In case of contact, clean skin with soap and water. Clean shoes and clothing before reuse. Get medical attention if symptoms occur.
Inhalation	Remove to fresh air.
Ingestion	If swallowed, seek medical advice immediately. If large quantities have been ingested, contact poison treatment specialist. Do not induce vomiting.

5 - FIRE SAFETY AND FIRE-FIGHTING MEASURES

Non-flammable water-based formulation

6 - ACCIDENTAL RELEASE MEASURES

Small Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Large Spill	Recover free product. Prevent entry into sewers, basements or confined areas; dike if needed. Finish cleaning by washing the contaminated area with detergent. Dispose of according to local and regional authority requirements.

7 - HANDLING AND STORAGE

Handling	Put on appropriate personal protective equipment (see section 8). Workers should wash hands and face before eating, drinking and smoking.
Storage	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry and cool area, away from incompatible materials and food. Use appropriate containment to avoid environmental contamination.

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit values:	Occupational exposure limits:
n/a	n/a

Exposure control	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Respiratory	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Hands	Impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: Protective gloves should be worn under normal conditions of use.
Eyes	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles.
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Specific gravity: 1000 kg/m^3

Solubility:
- Soluble in water

10 - STABILITY AND REACTIVITY

Stability	The product is stable.
Hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur

11 - TOXICOLOGICAL INFORMATION

Acute toxicity	n/a
Chronic toxicity	n/a
Irritation	n/a
Sensitizer	n/a
Cancinogenicity	n/a
Mutagenicity	n/a
Teratogenicity	n/a
Reproductive toxicity	n/a

12 - ECOLOGICAL INFORMATION

Aquatic toxicity	n/a
Biodegradability	n/a

13 - DISPOSAL CONSIDERATIONS

Waste disposal

This material, if discarded, should not be considered a European hazardous waste as defined by EU Directive 91/689/EEC.
The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14 - TRANSPORT INFORMATION

DOT Classification	Not regulated
TDG Classification	Not regulated
ADR/RID Class	Not regulated
IMDG Class	Not regulated
IATA-DGR Class	Not regulated

15 - REGULATORY INFORMATION

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Risk phrases	This product is not classified according to EU legislation
Inventory	
EU	Not determined
US (TSCA)	All components are listed or exempted
Canada	Not determined
Australia (AICS)	Not determined
China (IECSC)	Not determined
Japan	Not determined
Korea	Not determined
NZ	Not determined
Philippines	Not determined

16 - OTHER INFORMATION

HMIS Codes (US): Health: 1; Flammability: 0; Reactivity: 0