(in accordance with Regulation (EU) 2015/830)

TECNADIS Metalcoat Potenciador



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SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: TECNADIS Metalcoat Potenciador

1.2 Relevant identified uses of the mixture and uses advised against.

Technological coating

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: Tecnología Navarra de Nanoproductos S.L.

Address: Área Industrial Perguita, Calle A, nº1

City: 31210 Los Arcos

Province: Navarra

Telephone: +34 948 64 03 18 Fax: +34 948 64 03 19

E-mail: tecnan@tecnan-nanomat.es
Web: www.tecnan-nanomat.es

1.4 Emergency telephone number: +34 948 64 03 18 (Only available during office hours; Monday-Friday; 08:00-18:00)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the mixture.

In accordance with Regulation (EU) No 1272/2008:

Flam. Liq. 2: Highly flammable liquid and vapour.

2.2 Label elements.

Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:



Signal Word:

Danger

H statements:

H225 Highly flammable liquid and vapour.

P statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P370+P378 In case of fire: Use ABC powder, CO2 or alcohol resistant foam to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container according to current, local/national legislation.

2.3 Other hazards.

The product may have the following additional risks:

N.D.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Not Applicable.

3.2 Mixtures.

Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

	Name	Concentrate	(*)Classification - Regulation (EC) No 1272/2008	
Identifiers			Classification	specific concentration limit
Index No: 603-002- 00-5 CAS No: 64-17-5 EC No: 200-578-6 Registration No: 01- 2119457610-43-XXXX	[1] ethanol,ethyl alcohol	75 - 100 %	Flam. Liq. 2, H225	-
Index No: 607-002- 00-6 CAS No: 64-19-7 EC No: 200-580-7 Registration No: 01- 2119475328-30-XXXX	[1] acetic acid	1 - 10 %	Flam. Liq. 3, H226 - Skin Corr. 1A, H314	Skin Corr. 1A, H314: C ≥ 90 % Skin Corr. 1B, H314: 25 % ≤ C < 90 % Skin Irrit. 2, H315: 10 % ≤ C < 25 % Eye Irrit. 2, H319: 10 % ≤ C < 25 %

^(*) The complete text of the H phrases is given in section 16 of this Safety Data Sheet.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

<u>Inhalation</u>

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

Eye contact.

If wearing contact lenses, remove them. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. **NEVER** use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. **NEVER** induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed.

No known acute or delayed effects from exposure to the product.

4.3 Indication of any immediate medical attention and special treatment needed.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

^[1] Substance with a Community workplace exposure limit (see section 8.1).

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SECTION 5: FIREFIGHTING MEASURES.

The product is Highly inflammable, it can cause or considerably worsen a fire, the necessary prevention measures should be taken and risks avoided. In case of fire, the following measures are recommended:

5.1 Extinguishing media.

Recommended extinguishing methods.

Extinguisher powder or CO_2 . In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

5.2 Special hazards arising from the mixture.

Special risks

Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

Eliminate possible ignition points and ventilate the area. No smoking. Avoid breathing fumes. For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.

Pick up the spill with non-combustible absorbent materials (soil, sand, vermiculite, diatomite, etc.). Pour the product and the absorbent in an appropriate container. The contaminated area should be immediately cleaned with an appropriate decontaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

The fumes are heavier than air and can spread across the ground. They can form explosive mixtures with air. Prevent the creation of flammable or explosive fume concentrations in the air; prevent fume concentrations above work exposure limits. The product must only be used in areas where all unprotected flames and other ignition points have been eliminated. Electrical equipment has to be protected according to applicable standards.

The product can be electrostatically charged: always use earth grounds when transferring the product. Operators must use antistatic footwear and clothing, and floors must be conductors.

Keep the container tightly closed and isolated from heat sources, sparks, and fire. Do not use tools that can cause sparks. For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers. In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 35° C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from

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oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

Classification and threshold amount of storage in accordance with Annex I to Directive 2012/18/EU (SEVESO III):

		Qualifying quantity (tonnes) for the application of	
Code	Description	Lower-tier requirements	Upper-tier requirements
P5b	FLAMMABLE LIQUIDS	50	200

7.3 Specific end use(s).

None

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

Name	CAS No.	Country	Limit value	ppm	mg/m³
ethanol,ethyl alcohol	64-17-5	United	Eight hours	1000	1920
etrianoi,etriyi alconoi		Kingdom [1]	Short term		
acetic acid	64-19-7	European	Eight hours	10	25
acetic acid	04-19-7 Uni	Union [2]	Short term		

[1] According Limit Value (IOELV) list in 2nd Indicative Occupational Exposure adobted by Health and Safety Executive.

Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Туре	Value
ethanol,ethyl alcohol	DNEL	Inhalation, Long-term, Systemic effects	950
CAS No: 64-17-5	(Workers)		(mg/m³)
EC No: 200-578-6			
acetic acid	DNEL	Inhalation, Long-term, Local effects	25
CAS No: 64-19-7	(Workers)		(mg/m³)
EC No: 200-580-7			

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

Concentration levels PNEC:

Name	Details	Value
	Fresh water	0,96 (mg/L)
	Marine water	0,79 (mg/L)
ethanol,ethyl alcohol	aqua (intermittent releases)	2,75 (mg/L)
CAS No: 64-17-5	Soil	0,63 (mg/kg
EC No: 200-578-6		soil dw)
	sediment (freshwater)	3,6 (mg/kg
	·	sediment dw)

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %
Uses:	Technological coating

^[2] According both Binding Occupational Esposure Limits (BOELVs) and Indicative Occupational Exposure Limits (IOELVs) adopted by Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL).

The product does NOT contain substances with Biological Limit Values.

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Breathing protect	tion:					
If the recommended technical measures are observed, no individual protection equipment is necessary.						
Hand protection:						
PPE:	Protective gloves.					
Characteristics:	«CE» marking, category II.					
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420					
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.					
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.					
Material:	PVC (polyvinyl chloride) Breakthrough time (min.): Material thickness (mm): 0,35					
Eye protection:						
PPE:	Protective goggles with built-in frame.					
Characteristics:	«CE» marking, category II. Eye protector with built-in frame for protection against dust, smoke, fog and vapour.					
CEN standards:	EN 165, EN 166, EN 167, EN 168					
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.					
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.					
Skin protection:						
PPE:	Anti-static protective clothing.					
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.					
CEN standards:	EN 340, EN 1149-1, EN 1149-2, EN 1149-3, EN 1149-5					
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.					
Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.					
PPE:	Anti-static safety footwear.					
Characteristics:	«CE» marking, category II.					
CEN standards:	EN ISO 13287, EN ISO 20344, EN ISO 20346					
Maintenance:	The footwear should be checked regularly The level of comfort during use and acceptability are factors that are assessed very differently depending					
Observations:	on the user. Therefore, it is advisable to try on different footwear models and, if possible, different widths.					

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance:Liquid Colour: N.A./N.A. Odour:N.A./N.A. Odour threshold:N.A./N.A. pH:N.A./N.A.

Melting point: N.A./N.A. Boiling Point: N.A./N.A. Flash point: 13 °C Evaporation rate: N.A./N.A.

Inflammability (solid, gas): N.A./N.A.
Lower Explosive Limit: N.A./N.A.
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density:N.A./N.A.
Relative density:N.A./N.A.
Solubility: N.A./N.A.
Liposolubility: N.A./N.A.
Hydrosolubility: N.A./N.A.

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Partition coefficient (n-octanol/water): N.A./N.A.

Auto-ignition temperature: N.A./N.A. Decomposition temperature: N.A./N.A.

Viscosity: N.A./N.A.

Explosive properties: N.A./N.A. Oxidizing properties: N.A./N.A.

N.A./N.A. = Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Pour point: N.A./N.A. Blink: N.A./N.A.

Kinematic viscosity: N.A./N.A.

N.A./N.A. = Not Available/Not Applicable due to the nature of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Unstable in contact with:

- Acids.
- Bases.
- Oxidizing agents.

10.3 Possibility of hazardous reactions.

In certain conditions this may cause a polymerization reaction.

10.4 Conditions to avoid.

Avoid the following conditions:

- Heating.
- High temperature.
- Contact with incompatible materials.

10.5 Incompatible materials.

Avoid the following materials:

- Acids.
- Bases.
- Oxidizing agents.

10.6 Hazardous decomposition products.

Depending on conditions of use, can be generated the following products:

- COx (carbon oxides).
- Organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.

There are no tested data available on the product.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Splatters in the eyes can cause irritation and reversible damage.

a) acute toxicity;

Not conclusive data for classification.

b) skin corrosion/irritation;

Based on available data, the classification criteria are not met.

c) serious eye damage/irritation;

Not conclusive data for classification.

d) respiratory or skin sensitisation;

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Not conclusive data for classification.

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

Not conclusive data for classification.

g) reproductive toxicity;

Not conclusive data for classification.

h) STOT-single exposure;

Not conclusive data for classification.

i) STOT-repeated exposure;

Not conclusive data for classification.

j) aspiration hazard;

Not conclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

No information is available regarding the ecotoxicity of the substances present.

12.2 Persistence and degradability.

No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potencial.

Information about the bioaccumulation of the substances present.

Name	Bioaccumulation			
Name	Log Pow	BCF	NOECs	Level
ethanol,ethyl alcohol	-0,3	_	_	Very low
N. CAS: 64-17-5 EC No: 200-578-6	-0,3	-	-	very low
acetic acid	0.17	_		Voncloss
N. CAS: 64-19-7 EC No: 200-580-7	-0,17	-	-	Very low

12.4 Mobility in soil.

No information is available about the mobility in soil.

The product must not be allowed to go into sewers or waterways.

Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

SECTION 13 DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 2008/98/EC regarding waste management.

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Waste classification according to the European Waste Catalogue:

08 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

08 01 wastes from MFSU and removal of paint and varnish

08 01 11 waste paint and varnish containing organic solvents or other hazardous substances

Waste classified as hazardous.

Method of treatment according to Directive 2008/98/EC:

Recovery

R2 Solvent reclamation/regeneration

SECTION 14: TRANSPORT INFORMATION.

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA

for air transport.

Land: Transport by road: ADR, Transport by rail: RID.

Transport documentation: Consignment note and written instructions

<u>Sea</u>: Transport by ship: IMDG. Transport documentation: Bill of lading <u>Air</u>: Transport by plane: ICAO/IATA. Transport document: Airway bill.

14.1 UN number. UN No: UN1170

14.2 UN proper shipping name.

Description:

ADR: UN 1170, ETHANOL (ETHYL ALCOHOL), 3, PG II, (D/E) IMDG: UN 1170, ETHANOL (ETHYL ALCOHOL), 3, PG II ICAO: UN 1170, ETHANOL (ETHYL ALCOHOL), 3, PG II

14.3 Transport hazard class(es).

Class(es): 3

14.4 Packing group.

Packing group: II

14.5 Environmental hazards.

Marine pollutant: No

14.6 Special precautions for user.

Labels: 3



Hazard number: 33 ADR LQ: 1 L IMDG LQ: 1 L ICAO LQ: 1 L

Provisions concerning carriage in bulk ADR: Not authorized carriage in bulk in accordance with ADR. Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-E,S-D Proceed in accordance with point 6.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.

The product is not transported in bulk.

SECTION 15: REGULATORY INFORMATION.

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15.1 Safety, health and environmental regulations/legislation specific for the mixture.

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

Volatile organic compound (VOC)

Product Subcategory (Directive 2004/42/EC): Special finishes (All types)

Phase I* (from 01/01/2007): 840 g/l Phase II* (from 01/01/2010): 840 g/l

(*) g/l ready to use

VOC content (p/p): 94,86 % VOC content: 762,69 g/l

The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

Product classification according to Annex I of Directive 2012/18/EU (SEVESO III): P5b

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

Classification codes:

Flam. Liq. 2 : Flammable liquid, Category 2 Flam. Liq. 3 : Flammable liquid, Category 3 Skin Corr. 1A : Skin Corrosive, Category 1A

Sections changed compared with the previous version:

1,2,10,16

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

BCF: Bioconcentration factor.

CEN: European Committee for Standardization.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be

considered a tolerable minimum.

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not

anticipated.

EC50: Half maximal effective concentration.
 PPE: Personal protection equipment.
 IATA: International Air Transport Association.
 ICAO: International Civil Aviation Organization.

IMDG: International Maritime Code for Dangerous Goods.

LC50: Lethal concentration, 50%.

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LD50: Lethal dose, 50%.

Log Pow: Logarithm of the partition octanol-water. NOEC: No observed effect concentration.

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are

not expected in the environmental compartment.

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

Key literature references and sources for data: http://eur-lex.europa.eu/homepage.html

http://echa.europa.eu/

Regulation (EU) 2015/830. Regulation (EC) No 1907/2006. Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.