

MATERIAL SAFETY DATA SHEET

(According to Regulation (UE) No 453/2010)

TECNADIS METALCOAT BASE

Version: 2
Revision date: 23/11/2016

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Print date: 21/12/2016

SECTION 1: IDENTIFICATION OF THE MIXTURE AND COMPANY.

1.1 Product's identification.

Product name: TECNADIS METALCOAT BASE
Product code: T03b

1.2 Relevant identified uses of the mixture and inadvisable uses.

Technological coating

Inadvisable uses:

Other uses than those recommended.

1.3 Company's information.

Company: **Tecnología Navarra de Nanoproductos S.L.**
Address: Área Industrial Perguita, Calle A, nº1
City: 31210 Los Arcos
Province: Navarra (SPAIN)
Telephone: +34 948 64 03 18
Fax: +34 948 64 03 19
E-mail address: tecnan@tecnan-nanomat.es
Web: www.tecnan-nanomat.es

1.4 Emergency telephone: +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.

According to Regulation (EU) No 1272/2008:

- Eye Irrit. 2 : Causes serious eye irritation.
- Flam. Liq. 2 : Highly flammable liquid and vapour.
- STOT SE 3 : May cause respiratory irritation.

2.2 Labelling elements.

Labelling according Regulation (EC) No 1272/2008:

Pictograms:



Signal word:

Danger

H statement(s):

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

P statement(s):

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P243 Take precautionary measures against static discharge.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulation
- P370+P378 In case of fire: Use multipurpose powder or CO2 para la extinción.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

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.

Non aplicable.

3.2 Mixtures.

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

Identifier	Name	Concentration	(*)Classification - Regulation 1272/2008	
			Classification	Specific concentration limits
N. Index: 603-002-00-5 N. CAS: 64-17-5 N. CE: 200-578-6 N. register: 01-2119457610-43-XXXX	[1] ethyl alcohol,ethanol	25 - 50 %	Flam. Liq. 2, H225	-
	[1] Active component	50 - 75 %	Acute Tox. 4 *, H332 - Eye Irrit. 2, H319 - Flam. Liq. 3, H226 - STOT SE 3, H335	-

(*) The full text of the H statement(s) is detailed in paragraph 16 of this MSDS.

* See Regulation (CE) N° 1272/2008, Annex VI, section 1.2.

[1] Substance that is applied a community exposure limit in the workplace (see section 8.1).

SECTION 4: FIRST AID MEASURES.

IRRITANT PREPARATION. Its repeated or prolonged contact with skin or mucous membrane, can cause irritants, such as redness, blistering or dermatitis symptoms. Some of the symptoms may not be immediate. Allergic reactions may happen in the skin.

4.1 Description of first aid measures.

In cases of doubt, or when symptoms of discomfort continue, seek medical attention. Never give anything orally to an unconscious person.

Inhalation.

Place the victim to fresh air, keep warm and at rest, if the breathing is irregular or stopped, provide artificial respiration. Do not give anything orally. If the victim is unconscious, place in suitable position and seek medical help.

Eye contact.

In case of have contact lenses, remove them. Rinse eyes with plentiful clean and fresh water for at least 10 minutes, holding up the eyelids and seek a doctor.

Skin contact.

Remove soaked clothes. Wash the skin thoroughly with soap and water. **NEVER** use solvents or diluents.

Ingestion.

If accidentally the mixture is swallewd, immediatelly visit a doctor. Keep at rest. **NEVER** induce vomiting.

4.2 Main symptoms and effects, intense and retarded.

Irritant product, repeated or prolonged contact with the skin or mucous membranes can cause redness, blistering or dermatitis contact, inhalation of spray mist or suspended particles can cause irritation of the respiratory tract, some symptoms may not be immediate. Allergic reactions may happen.

4.3 Indication of immediate medical attention and special treatments that are needed immediatly.

In cases of doubt, or when symptoms of discomfort continue, seek medical attention. Never give anything orally to an unconscious person.

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SECTION 5: FIRE-FIGHTING MEASURES.

The product is highly flammable, it can cause significantly a intensify fire, necessary preventive measures should be taken and avoid risks. In case of fire the following measures are recommended:

The product is classified as flammable, the necessary preventive measures to avoid risks should be taken, in case of fire the following measures are recommended:

5.1 Extinguishing media.

Extinguishing media recommended.

Extinguishing powder or CO₂. In case of serious fire, also use foam resistant to alcohol and spray water. Do not use for extinguishing water stream.

5.2 Specific hazards arising from the mixture.

Special hazards.

Fire can produce a dense black smoke. As a result of the thermal decomposition, dangerous products can be appeared: carbon monoxide, carbon dioxide. To exposure combustion or decomposition products can be harmful to health.

5.3 Recommendations for fire-fighters.

Cool with water the tanks, cisterns or containers near to the heat source or fire. Have in mind the direction of the wind. Avoid that products used in fire fighting enter drains, sewers or waterways.

Fire protection equipment.

Depending on magnitude of fire, the use of proper protective equipment against the heat, independent respiratory equipment, gloves, goggles or face masks and boots may be necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

Eliminate possible sources of ignition and electrostatic charges, ventilate the area. No Smoking. Avoid breathing vapors. For exposure controls and personal protection measures, see section 8.

6.2 Precautions for the environment.

Avoid contamination of drains, surface or ground water, and soil.

6.3 Methods and materials for containment and cleaning.

Clean up discharge with non-combustible absorbent materials (soil, sand, vermiculite, diatomaceous soil...). Pour the product and the absorbent in an appropriate container. The contaminated area should be cleaned immediately with a appropriated decontaminant. Add the same decontaminant to the remnants and let several days until do not react, in non-closed container.

6.4 Reference to other sections.

For exposure controls and personal protection measures, see section 8.
For the elimination of waste, follow the recommendations in section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

The vapors are heavier than air and they may spread along floors. Explosive mixtures with air may be happened. Avoid vapor concentrations creations in the air, flammable or explosive; avoid vapor concentrations higher than the exposure limits during work. The product should only be used in areas which all naked flame and other sources of ignition have been eliminated. The electrical equipment must be protected according to the appropriate regulation.

The product may charge electrostatically: always use earth grounds when the product will be transferred. Operators should wear antistatic footwear and clothes, and floors must be conductors.

Keep the container tightly closed, isolated from sources of heat, sparks and fire. No tools that can produce sparks.

Avoid the product comes into contact with skin and eyes. Avoid vapor's inhalation and mists that appear in the spraying. For personal protection, see Section 8. Never use pressure to empty the containers, they are not pressure-resistant containers.

In the area of application it must be forbidden to smoke, eat and drink.

Keep with legislation on health and safety at work.

Always keep the product in same containers to the original material.

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7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. See the indications of the tag. Store between 5 and 35 °C in a dry and well-ventilated place, away from heat and direct sunlight. Keep away from ignition points. Keep away from oxidising agents and strongly acid or alkaline materials. No Smoking. Avoid access to unauthorized persons. Once the containers are open, they must be carefully closed and kept upright to prevent leakages.

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

Code	Description	Threshold quantity (tonnes) in order to the application	
		requirements of lower level	requirements of higher level
P5b	FLAMMABLE LIQUIDS	50	200

7.3 Specific final Uses.

None.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION.

8.1 Engineering controls.

Exposure limit during work for:

Name	N. CAS	Country	Limit value	ppm	mg/m ³
Ethyl alcohol, ethanol	64-17-5	Spain [1]	Eight hours		
			Short term	1000	1910
Active Components		Spain [1]	Eight hours	10	87
			Short term	400	1000

[1] According to the list of Environmental Professional Exposure Limit Values adopted by the National Institute of Safety and Health at Work (INSHT) 2015.

DNEL/DMEL concentration levels:

Name	DNEL/DMEL	Type	Value
Ethyl alcohol, ethanol N. CAS: 64-17-5 N. CE: 200-578-6	DNEL (Workers)	Inhalation, Chronic, Systemic effects	950 (mg/m ³)
Active Components	DNEL (Workers)	Inhalation, Chronic, Local effects	85 (mg/m ³)
	DNEL (Workers)	Inhalation, Chronic, Systemic effects	85 (mg/m ³)

DNEL: Derived No Effect Level, exposure level to the substance below which no adverse effects are expected.

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

PNEC deconcentration levels:

Name	Details	Value
Ethyl alcohol, ethanol N. CAS: 64-17-5 N. CE: 200-578-6	Freshwater	0,96 (mg/L)
	Sea water	0,79 (mg/L)
	Aqua (intermittent releases)	2,75 (mg/L)
	Soil	0,63 (mg/kg soil dw)
	Sediment (freshwater)	3,6 (mg/kg sediment dw)

PNEC: Predicted No Effect Concentration, substance concentration below which adverse effects are expected in environmental performance.

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8.2 Exposure controls.

Technical measures:

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

Concentration:	100 %		
Uses:	Technological coating		
Respiratory Protection:			
PPE:	Filter mask for protection against gases and particles.		
Characteristics:	«CE» marking Category III. The mask should have wide field of view and anatomically shaped to provide tightness and hermeticism.		
CEN Regulations:	EN 136, EN 140, EN 405		
Maintenance:	Do not store in areas exposed to high temperatures and humid environments before use it. It should especially monitor the status of inhalation and exhalation valves of the facial adapter. They should carefully read the manufacturer's instructions about the use and maintenance of equipment.		
Observations:	The equipment will engage the necessary filters based on the specific risk characteristics (Particles and Aerosols: P1-P2-P3 Gases and vapors: A-B-E-K-AX) changing them as advised by the manufacturer.		
Required filter type:	A2		
Hands Protection:			
PPE:	Protection gloves.		
Characteristics:	«CE» marking Category II.		
CEN Regulations:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	They will be stored in a dry place, away from sources of heat, and avoid the exposure to sunlight as much as possible. Neither modifications that can alter glove's resistance nor paints, solvents or adhesives will be applied.		
Observations:	The gloves should be the right size and fit the hand without being too loose or too tight. They should always be used with clean and dry hands.		
Material:	PVC (Polyvinyl chloride)	Penetration time (min.): > 480	Material thickness (mm): 0,35
Eyes Protection:			
PPE:	Goggles with integrated frame.		
Characteristics:	«CE» marking Category II. Goggles with integrated frame for the protection against dust, fumes, mists and vapors.		
CEN Regulations:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	The visibility through the goggles should be the optimum for which these elements should be cleaned daily, the protectives should be disinfected periodically following the manufacturer's instructions.		
Observations:	Damage's indicators can be: yellowing of the eyeglass, scratches on eyeglass surface, tears, etc.		
Skin protection:			
PPE:	Protective clothing with antistatic properties.		
Characteristics:	«CE» marking Category II. Protective clothing should not be too tight or loose to not interfere with the user's movements.		
CEN Regulations:	EN 340, EN 1149-1, EN 1149-2, EN 1149-3, EN 1149-5		
Maintenance:	The cleaning and maintenance instructions provided by the manufacturer should be followed to ensure appropriate protection.		
Observations:	Protective clothing should provide a comfort level consistent with the level of protection to be provided against the risk against which protects, with environmental conditions, the level of user activity and use time expected.		
PPE:	Protective footwear with antistatic properties.		
Characteristics:	«CE» marking Category II.		
CEN Regulations:	EN ISO 13287, EN ISO 20344, EN ISO 20346		
Maintenance:	The footwear should have regular monitoring, if they look damaged, stop using and be replaced.		
Observations:	Comfort in use and acceptability are factors that are valued very differently by individuals. Therefore different models should be testws and, if possible, different widths.		

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Basic physical and chemical properties:

Physical state: Liquid

Colour: Cloudy

Odour: Alcoholic

Odour threshold: N.D./N.A.

pH: 1.5 -2

Melting point: N.D./N.A.

Boiling point: 78°C

Flash point: 21 °C

Evaporation rate: N.D./N.A.

Flammability (solid, gas): N.D./N.A.

Lower explosion limit: N.D./N.A.

Upper explosion limit: N.D./N.A.

Vapour Pressure: 59.5 hPa (20°C)

Vapour density: N.D./N.A.

Relative density: 0.899

Solubility: N.D./N.A.

Liposolubility: N.D./N.A.

Hydrosolubility: N.D./N.A.

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

Autoflammable temperature: N.D./N.A.

Decomposition temperature: N.D./N.A.

Viscosity: 3.40 – 3.70 cp

Explosive properties: N.D./N.A.

Oxidising properties: N.D./N.A.

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

9.2. Additional information.

Volatile organic compound (VOC)

Product Subcategory: **Special finish (All types)**

Phase I * (since 01/01/2007): **840** g/l

Phase II* (since 01/01/2010): **840** g/l

(*) g/l ready to use

VOC content (p/p): 41,355 %

VOC content: **336,571** g/l

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards due to its reactivity.

10.2 Chemical stability.

Stable under recommended storage conditions (see section 7).

10.3 Possibility of hazardous reactions.

The product does not present hazardous reactions.

10.4 Conditions to avoid.

Avoid any kind of inappropriate handling.

10.5 Incompatible materials.

Keep away from oxidizing agents and strongly alkaline or acidic materials, to avoid exothermic reactions.

10.6 Hazardous decomposition products.

No decomposition if used for the expected uses.

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SECTION 11: TOXICOLOGICAL INFORMATION

IRRITANT PREPARATION. Its repeated or prolonged skin or mucous membrane contact can cause irritants, such as redness, blistering or dermatitis symptoms. Some of the symptoms may not be immediate. Allergic reactions may happen in the skin.

11.1 Information about toxicological effects.

Repeated or prolonged contact with the product may cause removal of skin's grease, resulting in non-allergic dermatitis and product's absorption through the skin.

Splashes in eyes may cause irritation and reversible damage.

a) Acute toxicity;

Inconclusive data for classification.

b) Skin corrosion/irritation;

Inconclusive data for classification.

c) Serious eye damage/eye irritation;

Product's category:

Eye irritation, Category 2: Causes serious eye irritation.

d) Respiratory or skin sensitisation;

Inconclusive data for classification.

e) Germ cell mutagenicity;

Inconclusive data for classification.

f) Carcinogenicity;

Inconclusive data for classification.

g) Reproductive toxicity;

Inconclusive data for classification.

h) Specific target organ toxicity - single exposure;

Product's category:

Target organ toxicity in determinate organs after a single exposure, Category 3

i) Specific target organ toxicity - repeated exposure;

Inconclusive data for classification.

j) Aspiration hazard;

Inconclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

No data available.

12.2 Persistence and degradability.

No data available.

12.3 Bioaccumulative potential.

Information about the bioaccumulation of the present substances.

Name	Bioaccumulation			
	Log Pow	BCF	NOECs	Level
Ethyl alcohol, ethanol N. CAS: 64-17-5 N. CE: 200-578-6	-0,3	-	-	Very low

12.4 Mobility in soil.

No data available.

Do not allow the product to go into sewers or waterways.

12.5 Results of PBT and vPvB assessment.

No data available.

12.6 Other adverse effects.

No data available.

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SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not allow the product to go into sewers or waterways. Waste and empty containers must be handled and disposed according to local/national regulations.

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

The classification of waste depends on the use of the product and the process that it follows. According to Law 22/2011 of waste, it is the responsibility of the waste producer to classify it correctly depending on the process that it follows.

Recommended waste classification according to 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 paint and varnish wastes which contain organic solvents or other dangerous substances

Waste classified as hazardous.

Recommended treatment method for waste management models, according to Directive 2008/98 / EC:

Valorization

R2 Recovery or regeneration of solvents

SECTION 14: TRANSPORT INFORMATION.

Transport following ADR / TPC regulations for transport by road, RID for rail, IMDG for sea and ICAO / IATA for air transport.

Road: Road transport: ADR, Transport by rail: RID.

Transport documentation: Consignment note and instructions.

Sea: Transport by ship: IMDG.

Transport documentation: Bill of lading.

Air: Transport by plane: IATA / ICAO.

Transport document: Airway bill.

14.1 Number UN.

Nº UN: UN 1170

14.2 Proper shipping name of the United Nations.

Description: UN 1170, ETHANOL, 3, GE II, (D/E)

14.3 Hazard class for transport.

Class: 3

14.4 Packaging group.

Packaging group: II

14.5 Environmental hazards.

Marine pollutant: No

14.6 Special precautions for users.

Label: 3



Hazard number: 33

ADR limited quantity: 5 L

Provisions concerning to bulk transport ADR: Unauthorised the bulk transport according to ADR.

Transport by ship, FEm - Emergency sheets (F - Fire, S - Spills): F-E, S-E

Act according to point 6.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

The product is not affected by the bulk transport ships.

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SECTION 15: REGLAMENTARY INFORMATION.

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

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

Consult Annex I to Directive 96/82/EC of the Council about the control of the inherent risks in serious accidents where dangerous substances are involved.

The regulations of Directive 2004/42 / EC on VOC apply to this product. See the product label and/or safety data sheet for more information.

Classification of the product in accordance with Annex I to Directive 2012/18 / EU (Seveso III): P5b

The product is not affected by Regulation (EU) No 528/2012 on the marketing and use of biocides.

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

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: OTHER INFORMATION.

Full text of H-Statements referred to sections 3:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

Classification codes:

Acute Tox. 4 [Inhalation] : Acute inhalation toxicity, Category 4
Eye Irrit. 2 : Eye irritation, Category 2
Flam. Liq. 2 : Flammable liquid, Category 2
Flam. Liq. 3 : Flammable liquid, Category 3
STOT SE 3 : Specific target organ toxicity - single exposure, Category 3

Modified sections from the previous version:

1,2,3,4,8,9,10,11,14,16

It is advisable to make a basic training regarding to health and safety security for proper product's handling.

Labelling in accordance with Directive 1999/45 / EC:

Symbols:



R-Phrases:

R11 Highly flammable.
R38 Irritating to skin.

S-Phrases:

S9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S33 Take precautionary measures against static discharges.
S43 In case of fire use ... (indicate in the space the precise type of fire-fighting equipment. If water increases the risk add - Never use water).
S60 This material and its container must be disposed of as hazardous waste.

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Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods.
BCF: Bioconcentration Factor.
CEN: The Normalization of the European Commission.
DMEL: Derived Minimal Effect Level.
DNEL: Derived No Effect Level.
EC50: Half maximal effective concentration.
PPE: Personal protective equipment.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
LC50: Lethal concentration, 50%.
LD50: Lethal Dose, 50%.
Log Pow: Partition-coefficient octanol-water.
NOEC: No Observed Effect Concentration.
PNEC: Predicted No Effect Concentration.
RID: Regulation concerning the international carriage of dangerous goods by rail.

Key references and sources of data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (UE) No 453/2010.

Regulation (CE) No 1907/2006.

Regulation (EU) No 1272/2008.

The information provided in this safety data sheet has been prepared in accordance with Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the registration, evaluation, authorization and restriction of chemicals (REACH), a European Agency chemicals is created, amending Directive 1999/45 / EC and Regulation (EEC) No 793/93 and Regulation (EC) No 1488/94 and Directive 76/769 / EEC and Directives 91/155 repealing / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC.

The information in this safety data sheet is based on current knowledge and on current EC laws and national, as the working conditions of users are beyond our knowledge and control. The product should not be used for other purposes than those specified, without an instruction in writing, of its handling. It is always the responsibility of the user to take appropriate measures in order to meet the requirements established by current legislation.

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SECTION 1: IDENTIFICATION OF THE MIXTURE AND COMPANY.

1.1 Product's identification.

Product name: TECNADIS METALCOAT ACTIVATOR
Product code: T03b2

1.2 Relevant identified uses of the mixture and inadvisable uses.

Industrial use. .

Coating based on nanoparticles with multiple functions (stain repellent, water repellent, anticorrosive...)

Inadvisable uses:

Other uses than those recommended.

1.3 Company's information.

Company: **Tecnología Navarra de Nanoproductos S.L.**
Address: Área Industrial Perguita, Calle A, nº1
City: 31210 Los Arcos
Province: Navarra (SPAIN)
Telephone: +34 948 64 03 18
Fax: +34 948 64 03 19
E-mail address: tecnan@tecnan-nanomat.es
Web: www.tecnan-nanomat.es

1.4 Emergency telephone: +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.

The product is not classified as dangerous according to Regulation (EU) No 1272/2008.

2.2 Labelling elements.

2.3 Other hazards.

The product may have the following additional risks:

N.D.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Non applicable.

3.2 Mixtures.

This mixture does not contain substances that represent a danger to health or to the environment in accordance with Regulation (EC) No. 1272/2008, have assigned a community exposure limit in the workplace, are classified as PBT / vPvB or included in the List Candidate.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

Due to the composition and the type of substances present in the mixture, no special warnings are needed.

Inhalation.

Place the victim to fresh air, keep warm and at rest, if the breathing is irregular or stopped, provide artificial respiration. Do not give anything orally. If the victim is unconscious, place in suitable position and seek medical help.

Eye contact.

In case of have contact lenses, remove them. Rinse eyes with plentiful clean and fresh water for at least 10 minutes, holding up the eyelids and seek a doctor.

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Skin contact.

Remove soaked clothes. Wash the skin thoroughly with soap and water. **NEVER** use solvents or diluents.

Ingestion.

If accidentally the mixture is swallowed, immediately visit a doctor. Keep at rest. **NEVER** induce vomiting.

4.2 Main symptoms and effects, intense and retarded.

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

4.3 Indication of immediate medical attention and special treatments that are needed immediately.

In cases of doubt, or when symptoms of discomfort continue, seek medical attention. Never give anything orally to an unconscious person.

SECTION 5: FIRE-FIGHTING MEASURES.

The product is NOT classified as flammable, in case of fire should follow the measures outlined below:

5.1 Extinguishing media.

Extinguishing media recommended.

Extinguishing powder or CO₂. In case of serious fire, also use foam resistant to alcohol and spray water. Do not use for extinguishing water stream.

5.2 Specific hazards arising from the mixture.

Special hazards.

Fire can produce a dense black smoke. As a result of the thermal decomposition, dangerous products can be appeared: carbon monoxide, carbon dioxide. To exposure combustion or decomposition products can be harmful to health.

5.3 Recommendations for fire-fighters.

Cool with water the tanks, cisterns or containers near to the heat source or fire. Have in mind the direction of the wind. Avoid that products used in fire fighting enter drains, sewers or waterways.

Fire protection equipment.

Depending on magnitude of fire, the use of proper protective equipment against the heat, independent respiratory equipment, gloves, goggles or face masks and boots may be necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure controls and personal protection measures, see section 8.

6.2 Precautions for the environment.

Product not classified as dangerous for the environment, avoid as much as possible any spillage.

6.3 Methods and materials for containment and cleaning.

Clean up discharge with non-combustible absorbent materials (soil, sand, vermiculite, diatomaceous soil...). Pour the product and the absorbent in an appropriate container. The contaminated area should be cleaned immediately with a appropriated decontaminant. Add the same decontaminant to the remnants and let several days until do not react, in non-closed container.

6.4 Reference to other sections.

For exposure controls and personal protection measures, see section 8.

For the elimination of waste, follow the recommendations in section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

The product does not require special handling, the following general measures are recommended:

For personal protection, see Section 8. Never use pressure to empty the containers, they are not pressure-resistant containers.

In the area of application it must be forbidden to smoke, eat and drink.

Keep with legislation on health and safety at work.

Always keep the product in same containers to the original material.

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7.2 Conditions for safe storage, including any incompatibilities.

The product does not require special storage measures.

As a general storage conditions avoid sources of heat, radiation, electricity and food contact.

Keep away from oxidising agents and strongly acid or alkaline materials.

Store between 5 and 35 °C, in a dry and well ventilated.

Store according to local legislation. Observe the indications of the tag.

The product is not affected by Directive 2012/18 / EU (SEVESO III).

7.3 Specific final Uses.

None.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION.

8.1 Engineering controls.

The product does NOT contain substances with Values Limit Environmental Exposure Profesional. El product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

Technical measures:

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

Concentration:	100 %
Uses:	Industrial use. Coating based on nanoparticles with multiple functions (stain repellent, water repellent, anticorrosive...)
Respiratory Protection:	
If the recommended technical measures are fulfilled you do not need any personal protective equipment.	
Hands Protection:	
If the product is handled properly you do not need any personal protective equipment.	
Eyes Protection:	
If the product is handled properly you do not need any personal protective equipment.	
Skin protection:	
PPE:	Protective footwear
Characteristics:	«CE» marking Category II.
CEN Regulations:	EN ISO 13287, EN 20347
Maintenance:	These articles are adapted to the shape of the foot of the first user. For this reason, as for hygiene, reuse should be avoided by someone else.
Observations:	Working footwear for professional use is the one that incorporates elements of protection designed to protect the user from injuries that could cause accidents, review the work which is appropriate for this shoe.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Basic physical and chemical properties:

Physical state: Liquid

Colour: N.D./N.A.

Odour: N.D./N.A.

Odour threshold: N.D./N.A.

pH: N.D./N.A.

Melting point: N.D./N.A.

Boiling point: N.D./N.A.

Flash point: > 60 °C

Evaporation rate: N.D./N.A.

Flammability (solid, gas): N.D./N.A.

Lower explosion limit: N.D./N.A.

Upper explosion limit: N.D./N.A.

Vapour Pressure: N.D./N.A.

Vapour density: N.D./N.A.

Relative density: N.D./N.A.

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Solubility: N.D./N.A.
Liposolubility: N.D./N.A.
Hydrosolubility: N.D./N.A.
Partition coefficient (n-octanol/water): N.D./N.A.
Autoflammable temperature: N.D./N.A.
Decomposition temperature: N.D./N.A.
Viscosity: N.D./N.A.
Explosive properties: N.D./N.A.
Oxidising properties: N.D./N.A.
N.D./N.A.= Not Available/Not Applicable due to the nature of the product.

9.2. Additional information.

VOC content (p/p): N.D.

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards due to its reactivity.

10.2 Chemical stability.

Stable under recommended storage conditions (see section 7).

10.3 Possibility of hazardous reactions.

The product does not present hazardous reactions.

10.4 Conditions to avoid.

Avoid any kind of inappropriate handling.

10.5 Incompatible materials.

Keep away from oxidizing agents and strongly alkaline or acidic materials, to avoid exothermic reactions.

10.6 Hazardous decomposition products.

No decomposition if used for the expected uses.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information about toxicological effects.

Repeated or prolonged contact with the product may cause removal of skin's grease, resulting in non-allergic dermatitis and product's absorption through the skin.

Splashes in eyes may cause irritation and reversible damage.

a) Acute toxicity;
Inconclusive data for classification.

b) Skin corrosion/irritation;
Inconclusive data for classification.

c) Serious eye damage/eye irritation;
Inconclusive data for classification.

d) Respiratory or skin sensitisation;
Inconclusive data for classification.

e) Germ cell mutagenicity;
Inconclusive data for classification.

f) Carcinogenicity;
Inconclusive data for classification.

g) Reproductive toxicity;
Inconclusive data for classification.

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h) Specific target organ toxicity - single exposure;
Inconclusive data for classification.

i) Specific target organ toxicity - repeated exposure;
Inconclusive data for classification.

j) Aspiration hazard;
Inconclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

No data available.

12.2 Persistence and degradability.

No data available.

12.3 Bioaccumulative potential.

No data available.

12.4 Mobility in soil.

No data available.

Do not allow the product to go into sewers or waterways.
Avoid penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No data available.

12.6 Other adverse effects.

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not allow the product to go into sewers or waterways. Waste and empty containers must be handled and disposed according to local/national regulations.
Follow the provisions of Directive 2008/98/EC for waste management.

SECTION 14: TRANSPORT INFORMATION.

This product is not dangerous to transport. In case of accident and disposal of the product act according to point 6.

14.1 Number UN.

This product is not dangerous to transport.

14.2 Proper shipping name of the United Nations.

No es peligroso en el transporte.

14.3 Hazard class for transport.

This product is not dangerous to transport.

14.4 Packaging group.

This product is not dangerous to transport.

14.5 Environmental hazards.

This product is not dangerous to transport.

14.6 Special precautions for users.

This product is not dangerous to transport.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

This product is not dangerous to transport.

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SECTION 15: REGLAMENTARY INFORMATION.

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

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

The product is not affected by Directive 2012/18 / EU (Seveso III).

The product is not affected by Regulation (EU) No 528/2012 on the marketing and use of biocides.

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

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: OTHER INFORMATION.

It is recommended to use the product only for the uses contemplated.

Other phrases:

Safety data sheet available for professional user on request.

Abbreviations and acronyms used:

CEN: The Normalization of the European Commission.

PPE: Personal protective equipment.

Key references and sources of data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (UE) No 453/2010.

Regulation (CE) No 1907/2006.

Regulation (EU) No 1272/2008.

The information provided in this safety data sheet has been prepared in accordance with Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the registration, evaluation, authorization and restriction of chemicals (REACH), a European Agency chemicals is created, amending Directive 1999/45 / EC and Regulation (EEC) No 793/93 and Regulation (EC) No 1488/94 and Directive 76/769 / EEC and Directives 91/155 repealing / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC.

The information in this safety data sheet is based on current knowledge and on current EC laws and national, as the working conditions of users are beyond our knowledge and control. The product should not be used for other purposes than those specified, without an instruction in writing, of its handling. It is always the responsibility of the user to take appropriate measures in order to meet the requirements established by current legislation.