

**TESLA NANOCOATINGS, INC.**  
**SAFETY DATA SHEET**

This Safety Data Sheet has been prepared to comply with the EU Regulation and the OSHA Hazard Communication Standard.

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION  
AND THE COMPANY/UNDERTAKING**

**1.1 Product Identifier:**

**Trade Name:** TESLAN® 3000 Low VOC Epoxy Topcoat – Part B

**1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:**

**Product Use:** Topcoat  
**Uses Advised Against:** None

**1.3 Details of the Supplier of the Safety Data Sheet:**

**Manufacturer:** Tesla NanoCoatings, Inc.  
50 North Avenue NW  
Massillon, OH 44647 USA

**Information Phone Number:** +1-330-417-3550

**Contact:** Todd Hawkins

**Email:** todd@teslanano.com

**Only Representative (REACH)/Nominated EU Importer:**

nEMCEL LTD.  
Myllarintie 1  
40640 JYVASKYLA, Finland  
Tel: +040-171-3894

**1.4 Emergency Telephone Number:** +1-330-417-3550 or +040-171-3894

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the Substance or Mixture:**

**GHS Classification:**

Flammable Liquid Category 3 (H226)  
Eye Damage Category 1 (H318)  
Skin Irritant Category 2 (H315)  
Skin Sensitization Category 1 (H317)  
Specific Target Organ Toxicity Single Exposure Category 3 (H335, H336)  
Aquatic Chronic Toxicity Category 3 (H412)

**EU Classification:**

Flammable, Irritant (Xi), Harmful (Xn) R10, R22, R37/38, R41, R43, R67, R52/53

**2.2 Label Elements:**

Danger!



Contains: Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines

**Hazard Phrases**

H226	Flammable liquid and vapour.
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H303	May be harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H320	Causes eye irritation.
H335	May cause respiratory irritation.

#### Precautionary Phrases

P210	Keep away from heat, sparks, open flames, and other ignition sources. –No smoking.
P233	Keep container tightly closed.
P240	Ground or bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, or lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust, fume, gas, mist, vapours or spray.
P264	Wash thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor or physician.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P333 + P313	If skin irritation or rash occurs: Get medical advice or attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or doctor if you feel unwell.
P370 + P378	In case of fire: Use water fog or spray, universal foam, carbon dioxide or dry chemical to extinguish.
P391	Collect spillage
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents and container in accordance with local and national regulations.

**2.3 Other Hazards:** None known.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixture:

Chemical Name	CAS#	EINECS#	EU Classification (67/548/EEC)	CLP Annex VI Classification	%
Solvent naptha	64742-95-6				<30
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1	614-452-7	Xi, N R38, R41, R43, R51/53	Skin Irrit. Cat 2 (H315), Eye Dam. Cat 1 (H318), Skin Sens. Cat 1 (H317), Aq. Chronic Cat 2 (H411)	<25
Benzyl Alcohol	100-51-6	202-859-9	Xn R20/22	Acute Tox. Cat 4 (H302,H332)	<12
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Fatty acids, tall-oil, reaction products with tetraethylenepentamine	68953-36-6	273-201-6	Xi R36/37/38, R43	Skin Irrit. Cat 2 (H315), Skin Sens. Cat 1 (H317), Eye Irrit. Cat 2 (H319), STOT SE Cat 3 (H335)	<0.5
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See Section 16 for further information on EU and GHS Classification.

#### SECTION 4: FIRST AID MEASURES

##### 4.1 Description of First Aid Measures:

**Eye:** Immediately rinse thoroughly with water for at least 30 minutes, while holding the eyelids open to be sure the material is washed out. Get medical attention immediately.

**Skin:** Immediately flush with plenty of water for 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

**Inhalation:** Remove victim to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Ingestion:** If the victim is conscious, give 1-2 glasses of water to dilute/wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

#### SECTION 5: FIRE-FIGHTING MEASURES

**5.1 Extinguishing Media:** Use water fog or spray, universal foam, carbon dioxide or dry chemical.

##### 5.2 Special Hazards Arising from the Substance or Mixture:

**Unusual Fire and Explosion Hazards:** Flammable liquid and vapor. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Vapors may form explosive mixtures with air in confined areas.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Firewater contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

##### 5.3 Advice for Fire-Fighters:

Wear appropriate protective equipment and self-containing breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

##### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment.

Remove all ignition sources such as open flames, spark producing equipment, pilot lights, etc. Wear appropriate protective clothing to prevent eye and skin contact including impervious gloves, safety goggles and respirator if needed. Ventilate area.

##### 6.2 Environmental Precautions:

Avoid release to the environment. Report spills and releases as required to appropriate authorities.

##### 6.3 Methods and Material for Containment and Cleaning Up:

Cover with an inert absorbent material and collect into an appropriate container for disposal. Use only non-sparking tools. Dispose of any contaminated cleaning materials in a sealed container.

#### SECTION 7: HANDLING AND STORAGE

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**7.1 Precautions for Safe Handling:** Do not breathe vapors, aerosols and mists. Use with adequate ventilation. Prevent contact with the eyes, skin and clothing. Always wear impervious gloves, chemical safety goggles and protective clothing when handling this material. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.

**7.2 Conditions for Safe Storage, Including any Incompatibilities:** Store in a cool, dry, well-ventilated location away from oxidizing agents and other incompatible materials. Keep containers closed when not in use.

**7.3 Specific end use(s):** Industrial use only

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control Parameters:

Chemical Name	Exposure Limits
Benzyl Alcohol	10 ppm TWA AIHA WEEL
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	None Established
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	None Established
Tetraethylenepentamine	5 mg/m <sup>3</sup> TWA AIHA WEEL (Skin; DSEN)
1,2,4-Trimethylbenzene	25 ppm TWA REL STESL AN ESL
Xylene	100 ppm TWA; 150 ppm STEL

### 8.2 Exposure Controls:

**Ventilation:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits. Use explosion proof electrical equipment and wiring where required.

#### Personal Protective Equipment:

Use personal protective equipment as required. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

**Respiratory Protection:** In operations where the occupational exposure limits are exceeded, an approved respirator with applicable cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

**Skin Protection:** Impervious gloves such as nitrile rubber are recommended to prevent skin contact. Contact your glove supplier for selection assistance.

**Eye Protection:** Chemical safety goggles are recommended.

**Other Protective Equipment:** Impervious clothing as needed to avoid skin contact and contamination of personal clothing. An eye wash facility and safety shower should be available in the work area.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic Physical and Chemical Properties:

<b>Appearance:</b> light tan liquid	<b>Vapor Density:</b> No data available
<b>Odor:</b> Aromatic odor	<b>Specific Gravity:</b> 1.397
<b>Odor Threshold:</b> No data available	<b>Solubility:</b> Slightly soluble in water
<b>pH:</b> Not available	<b>Octanol/Water Partition Coefficient:</b> No data available
<b>Melting Point/Freezing Point:</b> No data available	<b>Autoignition Temperature:</b> No data available
<b>Boiling Point:</b> 242.6°F (117°C) (1-Butanol)	<b>Decomposition Temperature:</b> No data available
<b>Flash Point:</b> 130°F (54°C)	<b>Viscosity:</b> No data available
<b>Evaporation Rate:</b> No data available	<b>Explosive Properties:</b> Not explosive
<b>Flammable Limits: LEL:</b> 1.4% (1-Butanol)	<b>Oxidizing Properties:</b> Not an oxidizer
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<b>UEL:</b> 11.2% (1-Butanol)	
<b>Vapor Pressure:</b> No data available	<b>Relative Density:</b> No data available
<b>Molecular Formula:</b> Mixture	<b>Flammability (solid, gas):</b> Not applicable
<b>Molecular Weight:</b> Mixture	

**9.2 Other Information:** VOC: 2.66 lbs/gal / 319.2 g/L (calculated on non-exempt (US EPA) solvent basis), % Volatile weight: 24.0%, % Volatile volume: 41.3%.

## SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:** Not reactive.

**10.2 Chemical Stability:** Stable under normal storage and handling conditions.

**10.3 Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**10.4 Conditions to Avoid:** Keep away from heat, sparks, flames and other sources of ignition. Avoid incompatible materials.

**10.5 Incompatible Materials:** Strong oxidizing agents. Nitric acid. Sulfuric acid. Strong acids. Strong bases.

**10.6 Hazardous Decomposition Products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on Toxicological Effects:

#### Potential Health Effects:

**Eye:** Severely irritating to the eyes. Risk of serious damage to the eyes.

**Skin:** Irritating to the skin. May cause allergic skin reaction (sensitization).

**Inhalation:** Irritating to the respiratory system.

**Ingestion:** Harmful if swallowed

**Chronic Hazards:** None known.

#### Acute Toxicity Values:

Benzyl Alcohol: Oral rat LD50-1620 mg/kg; Inhalation rat LC50->4.178 mg/L/4hr; Skin rabbit LD50-2000 mg/kg

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines: Oral rat LD50->2000 mg/kg; Skin rat LD50->2000 mg/kg

Fatty acids, tall-oil, reaction products with tetraethylenepentamine: No toxicity data available

Tetraethylenepentamine: Oral rat LD50 – 2100-3990 mg/kg; Skin rabbit LD50-660 mg/kg

Solvent naphtha: Oral rat LD50-3,492 mg/kg; Dermal rabbit LD50->3,160 mg/kg; Inhalation rat LC50->6,193 mg/l

**Skin corrosion/irritation:** No data available for the mixture. This product is classified as a skin irritant.

**Eye damage/irritation:** No data available for the mixture. This product is classified as corrosive to eyes.

**Respiratory Irritation:** No data available for the mixture. This product is classified as a respiratory irritant.

**Respiratory Sensitization:** No data available.

**Skin Sensitization:** No data available for the mixture. This product is classified as a skin sensitizer.

**Germ Cell Mutagenicity:** No data available.

**Carcinogenicity:** None of the components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH and the EU CLP.

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**Reproductive Toxicity:** No data available.

**Specific Target Organ Toxicity:**

Contains material which may cause damage to the following organs: kidneys, lungs, liver, central nervous system (CNS).

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 Toxicity:**

No data available for the mixture. The following information is for the components:

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines: 96 hr LC50 Zebrafish-7.07 mg/L; 48 hr EC50 Daphnia magna- 5.18 mg/L; 72 hr ErC50 Green algae – 4.11 mg/L  
Tetraethylenepentamine: 96 hr LC50 Poecilia reticulata-420 mg/L; 48 hr EC50 Daphnia magna- 24.1 mg/L; 72 hr EC50 Selenastrum capricornutum (Algae)- 2.1 mg/L (NOEC – 0.5 mg/L)

**12.2 Persistence and Degradability:** No data available

**12.3 Bioaccumulative Potential:** No data available

**12.4 Mobility in Soil:** No data available

**12.5 Results of PBT and vPvB Assessment:** No data available

**12.6 Other Adverse Effects:** Not applicable

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Waste Treatment Methods:**

Dispose in accordance with all local, state and federal regulations.

**SECTION 14: TRANSPORTATION INFORMATION**

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	UN1263	Paint*	3	PG III	No
Canadian TDG	UN1263	Paint	3	PG III	No
EU ADR/RID	UN1263	Paint	3	PG III	No
IMDG	UN1263	Paint	3	PG III	No
IATA/ICAO	UN1263	Paint	3	PG III	No

\* Hazardous Substance (49CFR172.101):

**14.6 Special Precautions for User:** Not applicable

**14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable

**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:**

**U.S. FEDERAL REGULATIONS:**

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**CERCLA 103 Reportable Quantity:** Xylene reportable quantity 100 lbs. Cumene reportable quantity 5000 lbs.

**SARA TITLE III:**

**Hazard Category for Section 311/312:** Acute Health, Fire Hazard

**Section 313 Toxic Chemicals:**

**Section 302 Extremely Hazardous Substances (TPQ):** None

**Section 304 Emergency Release Notification:** Xylene 100 lbs.; Cumene 5000 lbs.

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of this mixture are listed on the TSCA inventory.

**INTERNATIONAL REGULATIONS:**

**EUROPEAN REGULATIONS**

**REACH:** Tesla NanoCoatings, Inc. products comply with REACH regulation as applicable. For more information, contact Tesla NanoCoatings, Inc.

**SVHC:** This product contains the following Substances of Very High Concern (SVHCs): None.

**15.2 Chemical Safety Assessment:** None Required

**SECTION 16: OTHER INFORMATION**

**HMIS Ratings:** Health - 1                      Flammability - 3                      Physical Hazard - 0  
**NFPA Ratings:** Health - 1                      Flammability - 3                      Instability - 0

**SDS Revision History:**  
5/29/14: New SDS  
2/19/16: Revised/Updated SDS  
3/20/18: Revised/Updated SDS

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This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Tesla NanoCoatings, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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