



# Safety Data Sheet

## Nano Defender Ultra Shield 2.0

Compiled according to GB/T 16483, GB/T 17519  
Issue date: 6/6/2024 Revision date: 4/24/2025 Version: 3.0

### SECTION 1 Chemical product and company identification

<b>Chemical Chinese name</b>	:	
<b>Chemical English name</b>	:	Nano Defender Ultra Shield 2.0
<b>Product code</b>	:	41-0311
<b>Name of company</b>	:	Engineered Custom Coatings, LLC
Address	:	U.S.A. Pewaukee, WI 1002 Hickory Street
Zip code	:	53072
Fax	:	(262) 691-3892
Tel.	:	(262) 691-1930
<b>Emergency number</b>	:	24 Hour Emergency Assistance: InfoTrac 1-800-535-5053 (US & Canada) 1-352-323-3500 (International)
<b>Recommended use of the chemical</b>	:	No additional information available
<b>Restricted use of the chemical</b>	:	No additional information available

### SECTION 2 Hazards identification

#### Emergency overview




Highly flammable liquid and vapour.

#### GHS hazard classification

Physical hazards	:	Flammable liquids, Category 2
Health hazards	:	Skin corrosion/irritation, Category 2 : Serious eye damage/eye irritation, Category 2 : Germ cell mutagenicity, Category 1B : Carcinogenicity, Category 1B : Specific target organ toxicity - Single exposure, Category 3, Narcosis : Aspiration hazard, Category 1

Other hazards not mentioned above are Not applicable or No data is available.

#### Label elements

Hazard pictograms (GHS CN)	:	  
Signal word (GHS CN)	:	Danger.
Hazard statements (GHS CN)	:	H225 - Highly flammable liquid and vapour H304 - May be fatal if swallowed and enters airways H315 - Causes skin irritation H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness H340 - May cause genetic defects

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	H350 - May cause cancer.
Precautionary statements (GHS CN)	
Prevention measures	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking. P233 - Keep container tightly closed. P240 - Ground/bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting equipment. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Incident response	: P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. P302+P352 - IF ON SKIN: Wash with plenty of water. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 - IF exposed or concerned: Get medical advice/attention. P312 - Call a POISON CENTER or doctor if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P331 - Do NOT induce vomiting. P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P370+P378 - In case of fire: Use media other than water to extinguish.
Safe storage	: P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up.
Disposal	: P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### Physical and chemical hazards

Highly flammable liquid and vapour

### Health hazards

May be fatal if swallowed and enters airways

Causes skin irritation

Causes serious eye irritation

May cause drowsiness or dizziness

May cause genetic defects

May cause cancer

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Symptoms/effects : May cause drowsiness or dizziness.  
Symptoms/effects after eye contact : Eye irritation  
Symptoms/effects after ingestion : Risk of lung oedema  
Symptoms/effects after inhalation : May cause drowsiness or dizziness.  
Symptoms/effects after skin contact : Causes skin irritation,Irritation

### Environmental hazards

No additional information available

### Other hazards

No additional information available

## SECTION 3 Composition/information on ingredients

**Product form** : Mixture.

Ingredient(s)	Concentration or concentration ranges (w/w %)	CAS No.
Solvent solution	80 - 99	Trade secret
Silicone resin	1 - 20	Trade secret

## SECTION 4 First-aid measures

### Description of necessary first-aid measures

First-aid measures general : Never give anything by mouth to an unconscious person.  
If you feel unwell, seek medical advice (show the label where possible).  
Call a physician immediately

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER/doctor if you feel unwell.

First-aid measures after skin contact : Wash with plenty of water/....  
Wash contaminated clothing before reuse.  
If skin irritation occurs:  
Get medical advice/attention.  
Specific treatment first aid instruction on this label.  
Rinse skin with water/shower.  
Take off immediately all contaminated clothing.  
If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse immediately with plenty of water.  
Obtain medical attention if pain, blinking or redness persists.  
Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.

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First-aid measures after ingestion : If eye irritation persists: Get medical advice/attention.  
: Rinse mouth.  
Do NOT induce vomiting.  
Immediately call a POISON CENTER/doctor.  
Do not induce vomiting.  
Call a physician immediately

### Most important symptoms/effects

Symptoms/effects : May cause drowsiness or dizziness.  
Symptoms/effects after eye contact : Eye irritation  
Symptoms/effects after ingestion : Risk of lung oedema  
Symptoms/effects after inhalation : May cause drowsiness or dizziness.  
Symptoms/effects after skin contact : Causes skin irritation.  
Irritation

### Advices for first aid responders

No additional information available

### Notes for the doctor

Other medical advice or treatment : Treat symptomatically

## SECTION 5 Fire-fighting measures

### Extinguishing media

Suitable extinguishing media : Sand  
Water spray  
Dry powder  
Foam  
Carbon dioxide  
Unsuitable extinguishing media : Do not use a heavy water stream

### Specific hazards

Fire hazard : Highly flammable liquid and vapour.  
Hazardous decomposition products in case of fire : Toxic fumes may be released  
Explosion hazard : May form flammable/explosive vapour-air mixture

### Advice for firefighters and protective measures

Firefighting instructions : Use water spray or fog for cooling exposed containers  
Exercise caution when fighting any chemical fire  
Prevent fire fighting water from entering the environment  
Do not enter fire area without proper protective equipment, including respiratory protection  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection  
Do not attempt to take action without suitable protective equipment  
Self-contained breathing apparatus  
Complete protective clothing

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### SECTION 6 Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources  
Use special care to avoid static electric charges  
No open flames. No smoking  
Stop leak if safe to do so.  
Notify authorities if product enters sewers or public waters  
Absorb spillage to prevent material damage.

Personal Precautions, Protective  
Equipment and Emergency Procedures : No additional information available

#### For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment  
Emergency procedures : Evacuate unnecessary personnel  
No open flames, no sparks, and no smoking  
Only qualified personnel equipped with suitable protective equipment may  
intervene  
Avoid breathing dust/fume/gas/mist/vapours/spray

#### For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment  
Equip cleanup crew with proper protection  
Avoid breathing dust/fume/gas/mist/vapours/spray  
For further information refer to section 8: "Exposure controls/personal  
protection"  
Emergency procedures : Ventilate area  
Evacuate unnecessary personnel  
Stop leak if safe to do so.

#### Environmental precautions

Avoid release to the environment  
Prevent entry to sewers and public waters  
Notify authorities if liquid enters sewers or public waters  
Notify authorities if product enters sewers or public waters

#### Methods and material for containment and cleaning up

Methods for cleaning : No additional information available  
For containment : Absorb spilled material with sand or earth  
Contain any spills with dikes or absorbents to prevent migration and entry into  
sewers or streams  
Stop leak without risks if possible

#### Prevention measures for secondary accidents

Prevention Measures for Secondary  
Accidents : No additional information available  
Other information : Dispose of materials or solid residues at an authorized site

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### SECTION 7 Handling and storage

#### Handling

- Precautions for safe handling : Ensure good ventilation of the work station  
Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work  
Provide good ventilation in process area to prevent formation of vapour  
No open flames. No smoking  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Ground/bond container and receiving equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Flammable vapours may accumulate in the container  
Use explosion-proof equipment  
Wear personal protective equipment  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Take all necessary technical measures to avoid or minimize the release of the product on the workplace  
Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers  
Provide local exhaust or general room ventilation  
Floors, walls and other surfaces in the hazard area must be cleaned regularly  
Avoid breathing dust/fume/gas/mist/vapours/spray  
Avoid contact with skin and eyes
- Hygiene measures : Wash thoroughly after handling  
Separate working clothes from town clothes. Launder separately  
Wash contaminated clothing before reuse.  
Do not eat, drink or smoke when using this product.  
Always wash hands after handling the product
- Local and general ventilation : No additional information available
- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable

#### Storage

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from :  
Keep in fireproof place  
Store in a well-ventilated place.  
Keep cool.  
Keep container tightly closed.  
Store locked up.
- Technical measures : Proper grounding procedures to avoid static electricity should be followed  
Use explosion-proof electrical, ventilating, and lighting equipment  
Ground/bond container and receiving equipment.
- Material used in packaging/containers : No additional information available
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

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Packaging materials : Store always product in container of same material as original container

### SECTION 8 Exposure controls / Personal protection equipment

#### Occupational exposure limits

No additional information available

#### Biological limit values

No additional information available

#### Monitoring methods

No additional information available

#### Appropriate engineering controls

Ensure good ventilation of the work station

#### Personal protective equipment

- Personal protective equipment : Avoid all unnecessary exposure
- Environmental exposure controls : Avoid release to the environment.
- Other information : Do not eat, drink or smoke during use
- Hand protection : Wear protective gloves/protective clothing/eye protection/face protection protective gloves
- Eye protection : Chemical goggles or safety glasses  
Safety glasses
- Skin and body protection : Wear suitable protective clothing
- Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended  
[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s)



### SECTION 9 Physical and chemical properties

- Physical state : Liquid
- Appearance : No data available
- Colour : white
- Odour : characteristic
- pH : No data available
- Melting point : Not applicable
- Freezing point : No data available
- Boiling point : 56 °C
- Flash point : -4 °C

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<b>Auto-ignition temperature</b>	: No data available
<b>Decomposition temperature</b>	: No data available
<b>Flammability</b>	: Highly flammable liquid and vapour.
<b>Vapour pressure</b>	: No data available
<b>Relative vapour density at 20°C</b>	: No data available
<b>Density</b>	: 6.69 lb/gal
<b>Solubility</b>	: No data available
<b>Partition coefficient n-octanol/water (Log Pow)</b>	: No data available
<b>Viscosity, kinematic</b>	: < 20 mm <sup>2</sup> /s
<b>Lower explosion limit</b>	: No data available
<b>Upper explosion limit</b>	: No data available
<b>Radioactive</b>	: No

## SECTION 10 Stability and reactivity

<b>Chemical stability</b>	: Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture
<b>Reactivity</b>	: Highly flammable liquid and vapour.
<b>Possibility of hazardous reactions</b>	: Not established
<b>Conditions to avoid</b>	: Direct sunlight. Extremely high or low temperatures. Open flame. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition
<b>Incompatible materials</b>	: Strong acids Strong bases
<b>Hazardous decomposition products</b>	: fume Carbon monoxide Carbon dioxide May release flammable gases
<b>Other properties</b>	: No additional information available

## SECTION 11 Toxicological information

### Acute toxicity

Acute toxicity (oral)	: No data available
Acute toxicity (dermal)	: No data available
Acute toxicity (inhalation)	: No data available

### Skin corrosion/irritation

Skin corrosion/irritation	: Causes skin irritation.
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### Serious eye damage/eye irritation

Serious eye damage/eye irritation	: Causes serious eye irritation.
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### Respiratory or skin sensitisation

Respiratory or skin sensitisation : No data available

### Germ cell mutagenicity

Germ cell mutagenicity : May cause genetic defects.

### Carcinogenicity

Carcinogenicity : May cause cancer.

### Reproductive toxicity

Reproductive toxicity : No data available

### STOT - single exposure

STOT - single exposure : May cause drowsiness or dizziness.

### STOT - repeated exposure

STOT - repeated exposure : No data available

### Aspiration hazard

Aspiration hazard : May be fatal if swallowed and enters airways.

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Viscosity, kinematic	< 20 mm <sup>2</sup> /s
Density	6.69 lb/gal

## SECTION 12 Ecological information

### Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified.

Hazardous to the aquatic environment, long-term (chronic) : No data available

No additional information available

### Persistence and degradability

Nano Defender Ultra Shield 2.0	
Persistence and degradability	Not established.
Solvent solution (Trade secret)	
Persistence and degradability	Rapidly degradable

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Silicone resin (Trade secret)	
Persistence and degradability	Rapidly degradable

### Bioaccumulative potential

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Bioaccumulative potential	Not established

### Mobility in soil

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Bioaccumulative potential	Not established

### Other adverse effects

- Classification procedure (Ozone) : No data available  
Other information : Avoid release to the environment.

## SECTION 13 Disposal considerations

- Waste treatment methods** : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- Contaminated container and packaging** : No additional information available
- Additional information** : Handle empty containers with care because residual vapours are flammable, Flammable vapours may accumulate in the container, Do not re-use empty containers.
- Product/Packaging disposal recommendations** : Dispose in a safe manner in accordance with local/national regulations  
Dispose of contents/container to in accordance with local/regional/national/international regulations  
Disposal must be done according to official regulations
- Ecological waste information** : Avoid release to the environment.  
Hazardous waste due to toxicity
- Sewage disposal recommendations** : Disposal must be done according to official regulations
- Regional waste regulation** : Disposal must be done according to official regulations

## SECTION 14 Transport information

In accordance with JT/T 617 / IMDG / IATA

### UN number

- UN-No. (JT/T 617) : 1263  
UN-No. (IMDG) : 1263  
UN-No. (IATA) : 1263

### Proper shipping name

- Proper Shipping Name (JT/T 617) : PAINT

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Proper Shipping Name (IMDG) : PAINT

Proper Shipping Name (IATA) : Paint

### Transport hazard class(es)

#### Overland transport (JT/T 617)

Transport hazard class(es) (JT/T 617) : 3

Labels (JT/T 617) : 3.



Class (JT/T 617) : 3.

#### Transport by sea

Transport hazard class(es) (IMDG) : 3

Danger labels (IMDG) : 3.



Class (IMDG) : 3.

#### Air transport

Transport hazard class(es) (IATA) : 3

Danger labels (IATA) : 3.



Class (IATA) : 3.

### Packing group

Packing Group (JT/T 617) : II - Applicable for packaging consisting of substances presenting medium danger.

Packing group (IMDG) : II - substances presenting medium danger

Packing group (IATA) : II - Medium danger

### Marine pollutant

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available.

### Special transport precautions

#### Overland transport (JT/T 617)

Classification code (JT/T 617) : F1.

Special provisions (JT/T 617) : 163, 367, 650.

Limited quantities (JT/T 617) : 5L.

Excepted quantities (JT/T 617) : E2.

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Packing instructions (JT/T 617)	: P001.
Special packing provisions (JT/T 617)	: PP1.
Mixed packing provisions (JT/T 617)	: MP19.
Portable tank and bulk container instructions (JT/T 617)	: T4.
Portable tank and bulk container special provisions (JT/T 617)	: TP1, TP8, TP28.
Tank codes (JT/T 617)	: L1.5BN.
Vehicle for tank carriage (JT/T 617)	: FL.
Transport category (JT/T 617)	: 2.
Tunnel restriction code (JT/T 617)	: D/E.
Special provisions for carriage - Operation (JT/T 617)	: S2, S20.
Hazard identification number (JT/T 617)	: 33.
Orange-coloured plate (JT/T 617)	:



### Transport by sea

Special provisions (IMDG)	: 163, 367.
Limited quantities (IMDG)	: 5 L.
Excepted quantities (IMDG)	: E2.
Packing instructions (IMDG)	: P001.
Special packing provisions (IMDG)	: PP1.
IBC packing instructions (IMDG)	: IBC02.
Tank instructions (IMDG)	: T4.
Tank special provisions (IMDG)	: TP1, TP8, TP28.
EmS-No. (Fire)	: F-E.
EmS-No. (Spillage)	: S-E.
Stowage category (IMDG)	: B.
Properties and observations (IMDG)	: Miscibility with water depends upon the composition.

### Air transport

PCA Excepted quantities (IATA)	: E2.
PCA Limited quantities (IATA)	: Y341.
PCA limited quantity max net quantity (IATA)	: 1L.
PCA packing instructions (IATA)	: 353.
PCA max net quantity (IATA)	: 5L.
CAO packing instructions (IATA)	: 364.
CAO max net quantity (IATA)	: 60L.
Special provisions (IATA)	: A3, A72, A192.
ERG code (IATA)	: 3L.

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## SECTION 15 Regulatory information

**Dangerous Goods List (GB 12268-2012)** : Contains listed substance(s).

**New Chemical Substance Environmental Management Registration Measures (MEE Order 12 of 2020)**

**Inventory of Existing Chemical Substances in China (IECSC)** : Contains listed substance(s)

**Regulations on the Safe Management of Hazardous Chemicals (Decree 591 of the State Council)**

**Catalogue of Hazardous Chemicals (2015)** : Contains Hazardous Chemical(s)

Listed

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Considered as Hazardous Chemical(s)

**Identification of major hazard installations for dangerous chemicals (GB 18218)** : Contains listed substance(s)

**Law of the People's Republic of China on the Prevention and Control of Occupational Diseases**

**Catalogue for Classification of Hazardous Factors of Occupational Diseases** : Contains listed substance(s)

**Regulation on the Administration of Precursor Chemicals (Decree 445 of the State Council)**

**Catalogue of Precursor Chemicals** : Contains listed substance(s)

**Other domestic regulatory lists**

**Dangerous Goods List (GB 12268-2012)** : Contains listed substance(s)

**Inventory of Hazardous Chemicals under Key Supervision** : Contains listed substance(s)

## SECTION 16 Other information

**Other information** : None

Safety Data Sheet (SDS), China

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