



According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Revision Date: 24.10.2022

Supersedes Date: 15.12.2021

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product name	Nasiol PerWear
Product description	Nano coating solution for textiles.
Other means of identification	UFI: Not applicable.

### 1.2. Relevant identified uses of substance or mixture and uses advised against

Identified uses	Textile protection for personal usage.
Uses advised against	No specific uses advised against are identified

### 1.3. Details of the supplier of the safety data sheet

Supplier	Artekya Teknoloji Limited Şirketi Ziyagokalp Mah. Heskop San. Sit. M10/189 34490 Basaksehir – Istanbul / TURKEY Tel: +90 (212) 670 13 95 info@artekya.com
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### 1.4. Emergency telephone number

Emergency telephone	+90 (532) 769 44 27 +90 (212) 670 13 95
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification (EC 1272/2008)

Physical hazards	Not classified
Health hazards	Not classified
Environmental hazards	Not classified

### 2.2. Label elements

Pictogram	No pictogram required.
Signal word	No signal word required.
Hazard statements	No hazard statement required.
Precautionary statements	No precautionary statement required.
Contains	-

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

Endocrine-disrupting properties: The product fails to meet the criteria.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

The full text for all hazard statements is displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General Information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
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<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use an approved skin cleanser. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

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

<b>General information</b>	See Section 11 for additional information of health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Prolonged inhalation of high concentrations may damage respiratory system.
<b>Ingestion</b>	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
<b>Skin contact</b>	No data available.
<b>Eye contact</b>	No data available.

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

<b>Notes for the doctor</b>	Treat symptomatically.
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### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

<b>Suitable extinguishing media</b>	The product is not flammable. Extinguish with foam, carbon dioxide, dry powder or <b>media</b> water fog.
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**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### **5.2. Special hazards arising from the substance or mixture**

**Specific hazards** Containers can burst violently or explode when heated, due to excessive pressure build-up.

**Hazardous combustion** Thermal decomposition or combustion products may include the following products substances: Harmful gases or vapors.

### **5.3. Advice for firefighters**

**Protective actions during firefighting** Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Provide adequate ventilation.

### **6.2. Environmental precautions**

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground.

### **6.3. Methods and material for containment and cleaning up**

**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Small spillages: Collect spillage. Large spillage: Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the



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area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

#### **6.4. Reference to other sections**

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

**Usage precautions** Read and follow manufacturer's recommendations. Avoid contact with skin. Take precautionary measures against static discharge.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

#### **7.2. Conditions for safe storage, including any incompatibilities**

**Storage precautions** Store away from incompatible materials (see Section 10). Store locked up. Keep only in the original container. Keep container tightly closed, in a cool, well-ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent. Use containers made of the following materials: Teflon Polyethylene. Carbon steel. PP; Polypropylene. Unsuitable container materials: PS; Polystyrene. Rubber. EPDM; Ethylene Propylene Diene Monomer.

**Storage class** Chemical storage.

#### **7.3. Specific end use(s)**

**Specific end use(s)** The identified uses of this product are detailed in Section 1.2.

### **SECTION 8: Exposure controls/Personal protection**

#### **8.1. Control parameters**

**Ingredient comments** No exposure limits known for ingredient(s).

#### **8.2. Exposure controls**

**Protective equipment**





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**Appropriate engineering controls**

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.

**Eye/face protection**

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

**Hand protection**

Chemical resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

**Other skin and body protection**

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

**Hygiene measures**

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.



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<b>Respiratory protection</b>	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless
Odour	Characteristic
Odour threshold	No information available.
pH	3-5.5
Melting point	-1°C
Initial boiling point and range	98°C @4 mmHg.
Flash point	>100°C.
Evaporation rate	0.09
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	0.31 kPa
Vapor density	1.0
Relative density	No information available.
Density	1.01 g/cm <sup>3</sup> .
Partition coefficient n-octanol/water 20°C	Not applicable.
Solubility(ies)	Miscible with water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity	No information available.



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Explosive properties	No information available.
Oxidizing properties	Not available.
Particle characteristics	Not applicable.

### 9.2. Other information

#### Information with regard to physical hazard classes

Explosives	Not applicable.
Oxidizing properties	Not applicable.
Self-heating substances and mixtures	Not applicable.
Corrosion to metals	Not applicable.

#### Other safety characteristics

SAPT-temperature	Not applicable.
Surface tension	Not applicable.
Refraction index:	Not applicable.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	See the other subsections of this section for further details
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### 10.2. Chemical Stability

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
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### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No potentially hazardous reactions known.
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### 10.4. Conditions to avoid

Conditions to avoid	When exposed to high temperatures may produce hazardous decomposition products.
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### 10.5. Incompatible materials

Materials to avoid	Oxidizing materials. Acids-oxidising. Alkalis.
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases and vapors. Organic amine vapors.
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## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Acute toxicity	Based on available data the classification criteria are not met.
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#### Skin corrosion/irritation

**Skin corrosion/irritation** Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

#### Respiratory sensitization

**Respiratory sensitization** Based on available data the classification criteria are not met.

#### Skin sensitization

**Skin sensitization** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity – in vitro** Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

**IARC carcinogenicity** Based on available data the classification criteria are not met.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

#### Specific target organ toxicity – single exposure

**STOT – single exposure** Not classified as a specific target organ toxicant after a single exposure.

#### Specific target organ toxicity – repeated exposure

**STOT – repeated exposure** Not classified as a specific target organ toxicant after a single exposure.

#### Aspiration hazard

**Aspiration hazard** Based on available data the classification criteria are not met.

#### 11.2. Information on other hazards

**Endocrine disrupting properties** The product does not contain a substance that is considered to have endocrine disrupting properties.

### SECTION 12: Ecological information

**Ecotoxicity** The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

#### 12.1. Toxicity

Based on available data the classification criteria are not met.

#### 12.2. Persistence and degradability

**Persistence and degradability** No information available.





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### 12.3. Bioaccumulative potential

**Bioaccumulative potential** Bioaccumulation is unlikely.

**Partition coefficient** No information available.

### 12.4. Mobility in soil

**Mobility** The product is water-soluble and may spread in water systems.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** The product does not contain a substance that is considered to have endocrine disrupting properties.

### 12.7. Other adverse effects

**Other adverse effects** None known.

## SECTION 13: Disposal consideration

### 13.1. Waste treatment methods

**General information** The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers on liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN Number

Not applicable

### 14.2. UN proper shipping name

Not applicable



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**14.3. Transport hazard class(es)**

No transport warning sign required.

**14.4. Packing group**

Not applicable

**14.5. Environmental hazards**

Environmentally hazardous substance/ marine product No

**14.6. Special precautions for user**

Not applicable

**14.7. Maritime transport in bulk according to IMO instruments**

Not applicable

**SECTION 15: Regulatory information**

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

<b>National regulations</b>	Health and Safety at Work etc. Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
<b>EU legislation</b>	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, Authorization and Restriction of Chemicals (REACH) 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) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. Regulation (EC) No 1272/2008, CLP
<b>Authorizations (Title VII Regulation 1907/2006)</b>	No specific authorizations are known for this product.
<b>Restrictions (Title VII Regulation 1907/2006)</b>	No specific restrictions on use are known for this product.
<b>Seveso Directive – Control of major accident hazards</b>	P5c Lower-tier 5000 tonnes Upper tier 50000 tonnes.

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

**SECTION 16: Other information**

<b>Abbreviations and acronyms used in this safety data sheet</b>	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
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# Safety Data Sheet

## PerWear

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<b>Chemical abbreviations and acronyms</b>	ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IATA: International Air Transport Association. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Code for Dangerous Goods. CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate. LC50: Lethal Concentration to 50% of a test population. LD50: Lethal Dose to 50% of a test population (Median Lethal Dose). EC50: 50% of maximal Effective Concentration. IC50: Half maximal Inhibitory Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative. Not applicable.
<b>General information</b>	Only trained personnel should use this material.
<b>Key literature references and sources for data</b>	Source: European Chemical Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
<b>Training advice</b>	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
<b>Revision comments</b>	Revised according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
<b>Issued by</b>	R&D Department / Artekya Teknoloji Limited Şirketi
<b>Revision date</b>	24.10.2022
<b>Revision</b>	0.2
<b>Supersedes date</b>	15.12.2021
<b>Hazard statements in full</b>	No hazard statement required.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.