

MATERIAL SAFETY DATA SHEET (MSDS)

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

- **1.1 Product identifier**
- **Trade name:** Nanotechnology Enabled Footwear Protector 250ml
- **1.2 Relevant identified uses of the substance or mixture and uses advised against:** No further relevant information available.
- **Application of the substance / the preparation:** Coatings
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier/Manufacturer:**
ZYAX CHEM PVT. LTD.,
3rd Floor, Kamer Building,
38 Cawasji Patel Street, Fort,
Mumbai - 400001, India.
Contact No: +91 8779240420
info@zyax.in - www.zyax.in
- **Information department:** See supplier/manufacturer
- **1.4 Emergency telephone number:**
Toll Free No. - 1800 116 117 - India

SECTION 2: Hazards Identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008** The product is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** not applicable
- **Information concerning particular hazards for human and environment:**
Based on information available to us, the substance/the mixture is not a hazardous substance as defined by the Chemicals Act (ChemG), the Hazardous Substances Ordinance, Regulation (EC) No. 1272/2008 and Directive 1999/45/EC in their latest versions. Based on the classification criteria for mixtures according to Regulation (EC) No. 1272/2008, the product is not subject to labelling
- **Classification system:**
The classification complies with current legislation, but is supplemented with information from technical literature and company information.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable

Vetro Power Footwear Protector

Safety data Sheet

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

- **Description:** Preparation of modified hybrid materials in aqueous solution for dirt repellent coating.
- **Dangerous components:** Void
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First Aid Measures

· 4.1 Description of first aid measures

- **General information:** If symptoms persist or in case of doubt, seek medical advice.
- **After inhalation:** Supply fresh air; consult a doctor in case of pain.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**
Rinse opened eye for several minutes under running water.
If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse mouth with water.
Spit liquid out again.
Give person 3-4 glasses of water.
Do not induce vomiting; call medical help immediately.
If vomiting occurs spontaneously:
Hold the head of the vomiting person low with the body in a prone position in order to avoid aspiration.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** Symptomatic treatment.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
The product is not combustible and does not support any combustion.
Use firefighting measures suiting the environment.
- **For safety reasons - unsuitable extinguishing agents:** No data available.
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information:**
Dispose of fire debris and contaminated firefighting water in accordance with official regulations.
Collect contaminated firefighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Do not allow to penetrate the ground/soil.
Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**
Make sure to recycle or dispose of in suitable receptacles.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

- Avoid contact with eyes and skin.
- Prevent formation of aerosols.
- Do not breathe aerosol or vapours.

· Information about protection against explosions and fires: Observe the general rules of industrial fire protection.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

- Store in a cool location.
- Store in well-ventilated area.

· Information about storage in once common storage facility:

- Store away from foodstuffs.
- Store away from feed.

· Further information about storage conditions: None.

· Storage class: 10-13 other combustible and non-combustible substances.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical systems

- Mechanical ventilation/exhaustion is strongly recommended.
- No further data; see section 7.

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· Additional information: The lists that were valid during the creation were used as basis.

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

- The usual precautionary measures should be adhered to when handling chemicals.
- Do not eat, drink, smoke or sniff while working.
- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- Do not inhale gases/fumes/aerosols.
- Avoid contact with eyes and skin.

· Breathing equipment:

- At formation of aerosols and mist:



In case of brief exposure or low pollution use a respiratory filter device. In case of intensive or longer exposure use a respiratory protective device that is independent of circulating air.

· Protection of hands:

- Chemical resistant gloves (EN 374)

The glove material has to be impermeable and resistant to the product/substance/preparation.

Due to missing tests, no recommendation to the glove material can be given for the product / preparation / chemical mixture.

Vetro Power Footwear Protector

Safety data Sheet

Selection of the glove material in consideration of the penetration times, rates of diffusion and the degradation.

· **Material of gloves**

Butyl rubber, BR
Nitrile rubber, NBR
Plastic gloves

The selection of suitable gloves depends upon the material, and also upon the quality of the gloves. The degree of protection will vary from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

>480 min. (8h)

The above-mentioned times are based on reference values as per EN 374. Under practical conditions (33 °C – taking into account the body temperature), the maximum wearing time is to be limited to one-third.

The exact penetration time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials**

Leather gloves
Strong gloves

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information:**

· **Appearance:**

Form:	Liquid
Colour:	Slightly turbid Colourless
Odour:	Nearly odourless

Odour threshold:	Not determined
-------------------------	----------------

pH-value:	3-5 50 % solution In water
------------------	----------------------------------

· **Change in condition:**

Melting point/Melting range:	Not determined
-------------------------------------	----------------

Boiling point/Boiling range:	> 100 °C
-------------------------------------	----------

Flash point:	>195 °C – Non-flammable
---------------------	-------------------------

Flammability (solid, gaseous):	Not applicable
---------------------------------------	----------------

· **Ignition temperature:**

Decomposition temperature:	Not determined
-----------------------------------	----------------

Self ignition temperature:	Product is not self-igniting
-----------------------------------	------------------------------

Danger of explosion:	Product does not present an explosion hazard
-----------------------------	--

· **Explosion limits:**

Lower:	Not applicable
---------------	----------------

Upper:	Not applicable
---------------	----------------

Vapour pressure:	Not determined
-------------------------	----------------

Density at 20 °C:	1.06±0.03 g/cm ³
--------------------------	-----------------------------

Relative density:	Not determined
--------------------------	----------------

Vapour density:	Not determined
------------------------	----------------

Evaporation rate:	Not determined
--------------------------	----------------

(Contd. on page 5)

· Solubility in / Miscibility with	
· Water:	Miscible
· Partition coefficient (n-octanol/water): Not determined	
· Viscosity:	
· dynamic at 20 °C:	1-10 mPas
· kinematic:	Not determined
· 9.2 Other information	No further relevant information available

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
No hazardous decomposition products if instructions for storage and handling are followed.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** No toxicity data are available for the product itself.
- **Primary irritant effect:**
- **on the skin:** No irritating effect
- **on the eye:** No irritating effect
- **Sensitisation:** No sensitising effects known
- **Other information (about experimental toxicology):**
- **Carcinogenic, mutagenic effects and adverse effects on reproduction:**
Presently available data show no carcinogenic, mutagenic or teratogenic effects.
- **Subacute to chronic toxicity:**
- **STOT-single exposure** No data available
- **STOT-repeated exposure:** No data available
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available
- **12.2 Persistence and degradability** No further relevant information available
- **12.3 Bioaccumulative potential** No further relevant information available
- **12.4 Mobility in soil** No further relevant information available
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous to water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Danger to drinking water is possible if large quantities leak into the ground or into water course.

- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable
- **12.6 Other adverse effects** No further relevant information available

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.

SECTION 13: Disposal considerations

(PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00 wastes from MFSU of adhesives and sealants (including waterproofing products).
08 04 16 aqueous liquid waste containing adhesives or sealants other than those mentioned in 08 04 15.

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 13: Transport information

· 14.1 UN-Number	
· ADR, ADN, IMDG, IATA	This product is coming under special provision A3
SECTION 13: Transport information	
· ADR, ADN, IMDG, IATA	This product has not been classified as dangerous goods. It is therefore not subject to the following transport codes: ADR, A.D.N, IMDG/IMO, ICAO/IATA, ADG
· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	As above
· 14.4 Packing group	
· ADR, IMDG, IATA	As above
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable
· 14.7 MARPOL73/78 and the IBC Code	
· MARPOL73/78 and the IBC Code	Not applicable
· Transport/Additional information:	Not dangerous according to the above regulations
· UN "Model Regulation":	-

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

MAL-Code: Måleteknisk Arbejdshygienisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· **Sources:** MSDS of the manufacturer