Vetro Power Nano Electro Protect

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : Vetro Power Nano Electro Protect
Product code : -

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

1.2.1. Identified uses: Window glass cleaner.

1.3. Details of the supplier of the safety data sheet

ZYAX CHEM PRIVATE LIMITED
3rd Floor, Kamer Building,
38 Cawasji Patel Street, Fort,
Mumbai - 400001, India.
Contact No: +91 8779240420
info@zyax.in - www.zyax.in

1.4. Emergency telephone number

Emergency number : +91 22 2757 3899

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2 H225

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour.

2.2. Label Elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

GHS02

Signal word (CLP)	: Danger
Hazard statements (CLP)	: H225 - Highly flammable liquid and vapour.
Precautionary statements (CLP)	: P102 - Keep out of reach of children. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P410 - Protect from sunlight. P243 - Take action to prevent static discharges. P262 - Do not get in eyes, on skin, or on clothing. P260 - Do not breathe vapours. P301 - IF SWALLOWED: P315 - Get immediate medical advice/attention. P501 - Dispose of contents/container to Collection point.
Child-resistant fastening	: Not applicable
Tactile warning	: Applicable

2.3. Other Hazards

Other hazards which do not result in classification : In use, may form flammable/explosive vapour-air mixture.
May cause eye-irritation of susceptible persons.
Repeated or prolonged skin contact may cause dermatitis and defatting.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.1. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol substance with national workplace exposure limit(s) (IE)	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5	> 75	Flam. Liq. 2, H225
Trimethoxy(2-methylpropyl)silane	CAS-No.: 18395-30-7 EC-No.: 242-272-5	1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. If symptoms persist call a doctor.

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

First-aid measures after ingestion : Do not induce vomiting. Rinse mouth out with water. Get immediate medical advice/attention. If possible, show the doctor this safety data sheet. Failing this, show the doctor the packaging or label.

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

No additional information available

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

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : high volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2).

5.3. Advice for firefighters

Firefighting instructions : Cool down the containers exposed to heat with a water spray. Be careful to flashback of fire.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Other information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General measures : No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment.
For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Use explosion-proof equipment. Wear personal protective equipment.

: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Take off immediately all contaminated clothing and wash it before reuse. Prevent aerosol formation or splashes. Do not inhale spray vapour.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Ensure good ventilation of the work station.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.

Incompatible products : Oxidizing agent.

Heat and ignition sources : Keep away from sources of ignition - No smoking.
Keep away from any flames or sparking source.

Information on mixed storage : Keep away from oxidizing agents.

Storage area : Store away from heat. Protect from sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values
ethanol (64-17-5)
Ireland - Occupational Exposure Limits

Local name	Ethanol [Ethyl alcohol]
OEL STEL	1000 ppm
Regulatory reference	Chemical Agents Code of Practice 2021

8.1.2. Recommended monitoring procedures
No additional information available

8.1.3. Air contaminants formed
No additional information available

8.1.4. DNEL and PNEC
No additional information available

8.1.5. Control banding
No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls
Appropriate engineering controls: Ensure good ventilation of the work station.
8.2.2. Personal protection equipment Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection
Eye protection:
Safety glasses

8.2.2.2. Skin protection
Skin and body protection:
Long sleeved protective clothing

Hand protection:
In case of repeated or prolonged contact wear gloves.
Please follow the instructions related to the permeability and the penetration time provided by the manufacturer.
Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer

Hand protection

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Neoprene rubber (HNBR)	6 (> 480 minutes)	0,75		EN ISO 374

8.2.2.3. Respiratory protection
Respiratory protection: Wear breathing apparatus if exposed to vapours/dusts/aerosols

Respiratory protection

Device	Filter type	Condition	Standard
	ABEK		

8.2.2.4. Thermal hazards
No additional information available

8.2.3. Environmental exposure controls
Environmental exposure controls: Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless
Odour	: alcoholically
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: > 78 °C
Flammability	: Not available
Lower explosion limit	: 3,5 vol % Ethanol
Upper explosion limit	: 15 vol % Ethanol
Flash point	: 12 °C Ethanol
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 2,1 – 2,4
pH solution concentration	: 5 %
Viscosity, kinematic	: Not available
Solubility	: Miscible with water
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: ≈ 0,8 g/ml
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes
No additional information available

9.2.2. Other safety characteristics
No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactive Hazard

Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

In use, may form flammable vapour-air mixture.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Oxidizing agent.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
ethanol (64-17-5)	
LD50 oral rat	10470 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 9720 - 11380
LD50 oral	8300 mg/kg bodyweight Animal: mouse
Trimethoxy(2-methylpropyl)silane (18395-30-7)	
LD50 oral rat	>2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
Skin corrosion/irritation	: Not classified pH: 2,1 – 2,4
Serious eye damage/irritation	: Not classified pH: 2,1 – 2,4
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

Trimethoxy(2-methylpropyl)silane (18395-30-7)	
STOT-single exposure	May cause drowsiness or dizziness.
ethanol (64-17-5)	
LOAEL (oral, rat, 90 days)	3200 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	1730 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Remarks on results: other:
NOAEL (subchronic, oral, animal/male, 90 days)	< 9700 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
NOAEL (subchronic, oral, animal/female, 90 days)	> 9400 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)

Trimethoxy(2-methylpropyl)silane (18395-30-7)	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, vapour, 90 days)	≥ 2,54 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
Aspiration hazard	: Not classified
Trimethoxy(2-methylpropyl)silane (18395-30-7)	
Viscosity, kinematic	0,86 mm^2/s

11.2. Information on other hazards

No additional information available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - general	: We have no quantitative data concerning the ecological effects of this product.
Hazardous to the aquatic environment, short–term (acute)	: Not classified
Hazardous to the aquatic environment, long–term (chronic)	: Not classified
Additional information	: The product contains organic halogens.

ethanol (64-17-5)

LC50 - Fish [1]	14,2 g/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	10000 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	22000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	9,6 mg/l Test organisms (species): Daphnia magna Duration: '9 d'

Trimethoxy(2-methylpropyl)silane (18395-30-7)

LC50 - Fish [1]	>100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	>864 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	>1170 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

Vetro Power Nano Electro Protect

Persistence and degradability	The product is partially biodegradable. Significant residues remain. Ethanol. Readily biodegradable.

ethanol (64-17-5)

Persistence and degradability	Rapidly degradable

Trimethoxy(2-methylpropyl)silane (18395-30-7)

Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Vetro Power Nano Electro Protect

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Flammable vapours may accumulate in the container. Waste codes should be assigned by

the user, preferably in discussion with the waste disposal authorities. Waste code can't be determined according to the European Waste Catalogue (EWC), since it depends on the use of the product.

R/D code (Recovery/Disposal, EU 2008/98) : D10 - Incineration on land

SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / IMDG / IATA

	ADR	IMDG	IATA
14.1. UN number or ID number	UN 1170	UN 1170	UN 1170
14.2. UN proper shipping name	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Ethanol solution
Transport document description	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II, (D/E)	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 Ethanol solution, 3, II
14.3. Transport hazard class(es)			
14.4. Packing group	II	II	II
14.5. Environmental hazards	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No

No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: F1
Special provisions (ADR)	: 144, 601
Limited quantities (ADR)	: 1l
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Operation (ADR)	: S2, S20
Hazard identification number (Kemler No.)	: 33
Orange plates	
Tunnel restriction code (ADR)	: D/E

Special provisions (IMDG)	144
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Colourless, volatile liquids. Pure ETHANOL: flashpoint 13°C c.c. Explosive l imits: 3.3% to 19%. Miscible with water.
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, A58, A180
ERG code (IATA)	: 3L

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

The information given is based on our knowledge of this product at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the products for purposes other than those it is intended for. It is the sole responsibility of the user to take all precautions required in handling the product. We as manufacturer give the guarantee for the quality of the product.