

Vetro Power Heat-Shield Glass Protect

MATERIAL SAFETY DATA SHEET (MSDS)

Date issued 01 January 2026

Revision 02

Supersedes: Not applicable (first issue)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Vetro Power Heat-Shield Glass Protect
Product Description	IR / UV Cut Thermal Insulating Glass Coating
Product Use	Transparent heat-reflective coating for architectural and automotive glass
Date Issued	01 January 2026
Supersedes	Not applicable (first issue)

Manufacturer / Supplier

Company	ZYAX CHEM PVT. LTD.
Address	3rd Floor, Kamer Building, 38 Cawasji Patel Street, Fort, Mumbai - 400001, India.
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Emergency Contact	+91 22 2757 3899

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	C.A.S. No.	Percent (%)
Proprietary nano metal oxide	Proprietary	~ 8 - 20
Silicone resin	Proprietary	23 – 55
Butyl acetate	123-86-4	13 – 35
1-Methoxy-2-propyl acetate	108-65-6	~ 13
Ethylene glycol monobutyl ether acetate	112-07-2	10 – 20
2-(2H-benzotriazol-2-yl)-p-cresol	2440-22-4	~7

This product contains the following chemicals subject to the reporting requirements of Section 313 of Title III of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR Part 372:

- 2-(2H-benzotriazol-2-yl)-p-cresol (CAS 2440-22-4)
- Butyl acetate (CAS 123-86-4)

The exact composition of the proprietary components is withheld as a trade secret. Full disclosure will be made to a physician or occupational health professional in a medical emergency.

SECTION 3: HAZARDS IDENTIFICATION

3.1 GHS Classification of the Mixture

Flammable liquids	Category 3
Serious eye damage / irritation	Category 1
Skin corrosion / irritation	Category 2
Acute toxicity – inhalation	Category 3
Acute toxicity – oral / dermal	Category 4
STOT – single exposure	Category 3 (respiratory tract irritation, narcotic effects)

3.2 Label Elements

Hazard Pictograms



GHS02
Flammable



GHS05
Corrosive



GHS06
Acute toxicity



GHS07
Irritant / harmful

3.3 Hazard Statements

Code	Hazard Statement
H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

3.4 Precautionary Statements

Group	Code	Precautionary Statement
Prevention	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Prevention	P233	Keep container tightly closed.
Prevention	P240	Ground and bond container and receiving equipment.
Prevention	P260	Do not breathe vapour, mist or spray.
Prevention	P271	Use only outdoors or in a well-ventilated area.
Prevention	P280	Wear protective gloves, protective clothing, eye protection and face protection.
Response	P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Response	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
Response	P310	Immediately call a POISON CENTER or doctor.
Response	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Response	P370 + P378	In case of fire: Use carbon dioxide, dry chemical powder or foam to extinguish.
Storage	P403 + P235	Store in a well-ventilated place. Keep cool.
Storage	P405	Store locked up.
Disposal	P501	Dispose of contents and container through an authorised industrial waste handler.

3.5 Supplementary Hazard Ratings

	Rating	Value	Basis
NFPA 704	Health (blue)	3	Toxic if inhaled; causes serious eye damage
	Flammability (red)	2	Flash point 54 °C (37.8 – 93.3 °C range)
	Instability (yellow)	0	Stable under normal conditions
	Special (white)	–	No special hazard designation

SECTION 4: FIRST AID MEASURES

The following first aid recommendations assume that appropriate personal and industrial hygiene practices are followed.

4.1 Eye Contact

Without rubbing the eyes, flush with large quantities of water for at least 15 minutes, including the inside of the eyelids. Remove contact lenses if present and easy to do. Seek medical attention promptly.

4.2 Skin Contact

Wash with soap and flush with large amounts of water. Obtain medical attention. If the product permeates clothing, wash contaminated clothing and clean shoes before reuse.

4.3 Inhalation

Move the affected person to fresh air immediately. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Seek immediate medical attention.

4.4 Ingestion

If swallowed, call a physician immediately. Induce vomiting only on the instruction of a physician. Never give anything by mouth to an unconscious person.

4.5 Note to Physician

Treat symptomatically. Aspiration of this product into the lungs may cause chemical pneumonitis. Solvent components may sensitise the myocardium to catecholamines.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Flammable Properties

Flash point	54 °C
Autoignition temperature	325 °C
Flammable limits – LEL	No data available
Flammable limits – UEL	No data available

5.2 Extinguishing Media

Suitable: Carbon dioxide, dry chemical powder, foam and dry sand. Water spray may be used for small fires and for cooling containers.

Unsuitable: Direct water jet – sprayed water may spread the fire and increase the hazard.

5.3 Fire Fighting Procedures

- If a fire occurs in the vicinity of the product, promptly move containers to a safe location. If moving containers is not possible, spray water around the storage area to keep it cool.

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- Always wear full protective clothing and self-contained breathing apparatus when fighting a fire involving this product.
- Contain fire-fighting water; do not allow run-off to enter drains or watercourses.

5.4 Hazardous Combustion Products

Combustion may produce carbon monoxide, carbon dioxide, oxides of nitrogen, silica fume and dense irritating smoke.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

Observe the precautions given in the other sections of this document. Evacuate unprotected and untrained personnel from the hazard area, including the area downwind of the release. Rope off the area to prevent others from entering. Remove all potential ignition sources. Ventilate the area with fresh air. Clean-up must be carried out only by qualified personnel wearing full protective clothing.

6.2 Environmental Precautions

Prevent the product from entering drains, surface water, groundwater or soil. Notify the relevant authorities if a significant release reaches the environment.

6.3 Methods for Clean-Up

- Small spills: dilute with large amounts of water and wash away only where the water can be fully recovered.
- Large spills: contain the release with sand, earth or absorbent rags, then recover the released material into labelled, sealable containers.
- Recover as much material as possible because of the risk of environmental damage. Dilute any residue with water as far as practicable.
- Dispose of recovered material through an authorised industrial waste handler (see Section 13).

SECTION 7: HANDLING AND STORAGE

7.1 Handling

- Use only in a well-ventilated area.
- Keep containers appropriately sealed when not in use.
- Wear appropriate protective clothing to keep the product away from the skin, mucous membranes and eyes.
- Minimise exposure to released vapours and to airborne concentrations generated while working with the material.
- Manage static electricity with care; use conductive materials in clothing and footwear and earth all transfer equipment.
- Do not eat, drink or smoke in the working area.
- After working with the material, wash hands and face thoroughly and change clothing.

7.2 Storage

- Seal containers after use. Store in a cool, dry, well-ventilated area away from direct sunlight, heat sources and freezing conditions.

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- Store away from strong oxidising agents and foodstuffs.
- All electrical equipment near the storage area must have spark and ignition control protection.
- Recommended storage temperature: 5 – 30 °C.
- Store locked up (P405) and keep out of reach of children and unauthorised persons.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

MANDATORY: Personal protective equipment is mandatory for all handling operations

- Indirect-vented chemical splash goggles (and face shield where splashing is likely).
- Butyl rubber gloves, chemical-resistant boots and apron.
- NIOSH-approved full-face supplied-air respirator.
- Eyewash station and safety shower must be available and clearly marked in the work area.

8.1 Engineering Controls

Provide airtight containers and local exhaust ventilation at all open containers. Provide, and clearly mark near the area of use, a safety shower and facilities for washing hands and eyes. Use explosion-proof ventilation and electrical equipment.

8.2 Personal Protective Equipment (PPE)

Protection	Requirement
Eye / Face	Avoid contact with vapours, mists or spray. Indirect-vented chemical splash goggles are recommended; add a face shield where splashing is likely.
Skin / Hand	Avoid skin contact. Butyl rubber gloves, rubber boots and apron are recommended. Select gloves and protective clothing based on an exposure assessment and confirm compatibility with the manufacturer.
Respiratory	Avoid breathing vapours, mists or spray. Use a NIOSH-approved full-face supplied-air respirator selected on the basis of airborne contaminant concentration and in accordance with OSHA regulations.
Ingestion	Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water before eating.

8.3 Occupational Exposure Limits

Ingredient	C.A.S. No.	Exposure Limit
Butyl acetate	123-86-4	TLV-TWA 50 ppm; STEL 150 ppm (ACGIH)
1-Methoxy-2-propyl acetate	108-65-6	TLV-TWA 50 ppm; STEL 100 ppm (ACGIH)
Ethylene glycol monobutyl ether acetate	112-07-2	TLV-TWA 20 ppm (ACGIH)
2-(2H-benzotriazol-2-yl)-p-cresol	2440-22-4	No limit established
Proprietary nano metal oxide	Proprietary	No limit established; control as respirable particulate

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical form	Liquid
Colour	Dark blue
Odour	Strong solvent odour
Boiling point	158 °C
Vapour pressure	0.277 kPa at 20 °C
Specific gravity (20 °C)	1.0 ± 0.1
Flash point	54 °C
Autoignition temperature	325 °C
Flammable limits	No data available
Combustibility	Volatile, flammable liquid
Explosiveness	Exposure to heat while stored in a sealed tank or bottle gives rise to a risk of explosion
Reactivity	Reacts strongly with strong oxidising agents
Solubility in water	Insoluble / partially miscible

SECTION 10: STABILITY AND REACTIVITY

Stability	Stable under normal conditions of storage and use in a sealed container, away from heat and ignition sources.
Conditions to avoid	Heat, sparks, open flame, static discharge, direct sunlight and freezing temperatures.
Materials to avoid	Strong oxidising agents, strong acids and strong alkalis.
Hazardous decomposition	Carbon monoxide, carbon dioxide, oxides of nitrogen and silica fume on combustion.
Hazardous polymerisation	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Ingredient	C.A.S. No.	LD50 (oral, rat)	Other
1-Methoxy-2-propyl acetate	108-65-6	8,532 mg/kg	Eye and skin irritant
Butyl acetate	123-86-4	14,000 mg/kg	Respiratory irritant
Ethylene glycol monobutyl ether acetate	112-07-2	3,200 mg/kg	Absorbed through skin
2-(2H-benzotriazol-2-yl)-p-cresol	2440-22-4	No data available	–

11.1 Effects of Exposure

- Eyes: causes severe irritation or burns.
- Skin: causes irritation; repeated or prolonged contact may cause defatting and dermatitis.
- Inhalation: toxic if inhaled; causes irritation of the nose, throat and respiratory tract. High concentrations may cause headache, dizziness, drowsiness and narcosis.
- Ingestion: harmful if swallowed; may cause nausea, vomiting and abdominal pain.

11.2 Chronic Effects

No component of this product is listed as a carcinogen by IARC, NTP or OSHA. No additional information is presently available on the risks of the mixture of these ingredients as supplied.

SECTION 12: ECOLOGICAL INFORMATION

Care should be taken to avoid release into the environment because of the risk of environmental damage.

- Prevent release of the product, or of wash water, onto the ground, into the water supply or into the atmosphere.
- The product is expected to be harmful to aquatic organisms.
- Persistence, degradability, bioaccumulative potential and mobility in soil: no test data available for the mixture.

SECTION 13: DISPOSAL CONSIDERATIONS

- Disposal must be entrusted to an authorised industrial waste handler.
- Do not permit product or rinse water to be released into the water supply or the drainage system.
- Dispose of empty containers through an authorised handler.
- Regulations vary by jurisdiction. Consult applicable national, state and local regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION



Class 3
label
Flammable liquid

UN Number	UN 1263
Proper Shipping Name	PAINT
Transport Hazard Class	3 (Flammable Liquids)
Packing Group	III
Label(s) required	Class 3 – Flammable liquid
Marine Pollutant	No

14.1 Specific Safety Measures

- Every package must bear the Class 3 flammable liquid label, the UN number and the proper shipping name.
- Handle containers with care when loading and unloading.
- Do not damage containers by dropping, dragging or any other impact.
- Protect containers with appropriate covers to keep out rainwater and direct sunlight.
- Take appropriate measures to prevent containers from falling when stacked.
- Retain the yellow hazard cards with the containers throughout transportation.
- Keep containers away from foodstuffs and animal feed during transportation.

SECTION 15: REGULATORY INFORMATION

- Classified and labelled in accordance with the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).
- India: subject to the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (as amended) and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
- USA: contains chemicals subject to the reporting requirements of SARA Title III Section 313 and 40 CFR Part 372 (see Section 2).
- All ingredients are listed on, or exempt from, the applicable national chemical inventories.

For further regulatory information, contact Zyax Chem Pvt. Ltd. using the details in Section 1.

SECTION 16: OTHER INFORMATION

Date of issue	01 January 2026
Revision	02 – first issue
Supersedes	Not applicable
Prepared by	Zyax Chem Pvt. Ltd.

Key to Abbreviations

ACGIH – American Conference of Governmental Industrial Hygienists; CAS – Chemical Abstracts Service; GHS – Globally Harmonised System; IARC – International Agency for Research on Cancer; LD50 – median lethal dose; LEL/UEL – lower/upper explosive limit; NFPA – National Fire Protection Association; NIOSH – National Institute for Occupational Safety and Health; NTP – National Toxicology Program; OSHA – Occupational Safety and Health Administration; PPE – personal protective equipment; STEL – short-term exposure limit; STOT SE – specific target organ toxicity, single exposure; TLV-TWA – threshold limit value, time-weighted average; UN – United Nations.

Disclaimer

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– END OF SAFETY DATA SHEET –