

Vetro Power METALGUARD 250

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1 Product identifier

Trade name : Vetro Power METALGUARD 250

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

No further relevant information available.

Application of the substance / the mixture : Heat-resistant non-stick coating

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

ZYAX CHEM PVT. LTD.,

3rd Floor, Kamer Building,

38 Cawasji Patel Street, Fort,

Mumbai - 400001, India.

Contact No: +91 8779240420

customercare@vetropower.com - www.vetropoweramc.com

Informing department : Product Safety Department
+91 8779240420 (Mo-Fr 10:00 am until 6:00 pm)

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

Flam. Liq. 3 H226 Flammable liquid and vapour.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



GHS02



GHS07

Signal word : Warning

Hazard-determining components of labelling:

n-butyl acetate

Hazard statements

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P243 Take action to prevent static discharges.

P280 Wear protective gloves / eye protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

SECTION 3: Composition/information on ingredients
3.2 Chemical characterisation: Mixtures

Description : Mixture of the substances listed below with harmless additions.

Dangerous components:

Product identifier	Name / Classification	%
CAS: 123-86-4 EINECS: 204-658-1	n-butyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	25-50%
CAS: 108-65-6 EINECS: 203-603-9	2-methoxy-1-methylethyl acetate ⚠ Flam. Liq. 3, H226	12.5-25%
CAS: 78-83-1 EINECS: 201-148-0	2-methylpropan-1-ol ⚠ Flam. Liq. 3, H226; ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315; STOT SE 3, H335-H336	≥1-<2.5%
CAS: 70657-70-4 EINECS: 274-724-2	2-methoxypropyl acetate ⚠ Flam. Liq. 3, H226; ⚠ Repr. 1B, H360D; ⚠ STOT SE 3, H335	<0.3%
CAS: 556-67-2 EINECS: 209-136-7	octamethylcyclotetrasiloxane ⚠ Flam. Liq. 3, H226; ⚠ Repr. 2, H361f; ⚠ Aquatic Chronic 1, H410 (M=10) PBT; vPvB	≥0.0025-<0.025%

Additional information : For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Instantly remove any clothing soiled by the product.

Wash dirty clothes before reuse.

- | | | |
|--------------------|---|--|
| After inhalation | : | Supply fresh air; consult doctor in case of symptoms. |
| After skin contact | : | On contact with skin clean with water and soap.
If skin irritation continues, consult a doctor. |
| After eye contact | : | Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor. |
| After swallowing | : | Rinse out mouth.
In case of persistent symptoms consult doctor. |

4.2 Most important symptoms and effects, both acute and delayed

May irritate the eyes.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents : CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents : Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

Can be released in case of fire

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

5.3 Advice for firefighters

Protective equipment : Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Use breathing protection against the effects of fumes/dust/aerosol.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

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 information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers:

Store in cool location.
Provide floor trough without outlet.
Regulations for storage of flammable liquids.

Information about storage in one common storage facility:

Store away from oxidising agents.
Regulations for storage of flammable liquids.
Further information about storage : Keep container tightly sealed.
conditions
Storage class : 3

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information about design of : No further data; see section 7.
technical systems

Components with critical values that require monitoring at the workplace:

123-86-4 n-butyl acetate	
WEL (Great Britain)	Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm
IOELV (EU)	Short-term value: 723 mg/m ³ , 150 ppm Long-term value: 241 mg/m ³ , 50 ppm
MAK (Switzerland)	Short-term value: 720 mg/m ³ , 150 ppm Long-term value: 240 mg/m ³ , 50 ppm SSc;
AGW (Germany)	Long-term value: 300 mg/m ³ , 62 ppm 2(I);AGS, Y

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108-65-6 2-methoxy-1-methylethyl acetate	
WEL (Great Britain)	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk
IOELV (EU)	Short-term value: 550 mg/m ³ , 100 ppm Long-term value: 275 mg/m ³ , 50 ppm Skin
MAK (Switzerland)	Short-term value: 275 mg/m ³ , 50 ppm Long-term value: 275 mg/m ³ , 50 ppm SSc;
AGW (Germany)	Long-term value: 270 mg/m ³ , 50 ppm 1(I);DFG, EU, Y
78-83-1 2-methylpropan-1-ol	
WEL (Great Britain)	Short-term value: 231 mg/m ³ , 75 ppm Long-term value: 154 mg/m ³ , 50 ppm
MAK (Switzerland)	Short-term value: 150 mg/m ³ , 50 ppm Long-term value: 150 mg/m ³ , 50 ppm SSc;
AGW (Germany)	Long-term value: 310 mg/m ³ , 100 ppm 1(I);DFG, Y
70657-70-4 2-methoxypropyl acetate	
MAK (Switzerland)	Short-term value: 224 mg/m ³ , 40 ppm Long-term value: 28 mg/m ³ , 5 ppm H R1bf R1bd SSb;
AGW (Germany)	Long-term value: 28 mg/m ³ , 5 ppm 2(I);DFG, H, Z

DNELs

123-86-4 n-butyl acetate		
Oral	DNEL	2 mg/kg bw/day (Consumer, systemic, long-term) 2 mg/kg bw/day (Consumer, systemic, acute)
Dermal	DNEL	11 mg/kg bw/day (worker, systemic, long term) 11 mg/kg bw/day (Workers, systemic, acute) 6 mg/kg bw/day (Consumer, systemic, long-term) 6 mg/kg bw/day (Consumer, systemic, acute)
Inhalative	DNEL	600 mg/m ³ (Workers, local, acute) 300 mg/m ³ (Workers, local, long-term) 300 mg/m ³ (Consumer, local, acute) 35.7 mg/m ³ (Consumer, local, long-term)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	DNEL	1.67 mg/kg bw/day (Consumer, systemic, long-term)

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Dermal	DNEL	153.5 mg/kg bw/day (worker, systemic, long term) 54.8 mg/kg bw/day (Consumer, systemic, long-term)
Inhalative	DNEL	550 mg/m ³ (Workers, local, acute) 275 mg/m ³ (worker, systemic, long term) 33 mg/m ³ (Consumer, systemic, long-term) 33 mg/m ³ (Consumer, systemic, acute)

PNECs

123-86-4 n-butyl acetate	
PNEC	0.18 mg/l (Freshwater) 0.018 mg/l (Sea water) 0.36 mg/l (sporadic release) 35.6 mg/l (Sewage treatment plant)
PNEC	0.981 mg/kg dwt (Freshwater sediment) 0.0981 mg/kg dwt (Marine sediment) 0.0903 mg/kg dwt (Floor)
108-65-6 2-methoxy-1-methylethyl acetate	
PNEC	0.635 mg/l (Freshwater) 0.0635 mg/l (Sea water) 100 mg/l (Sewage treatment plant)
PNEC	3.29 mg/kg dwt (Freshwater sediment) 0.329 mg/kg dwt (Marine sediment) 0.29 mg/kg dwt (Floor)

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

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

Wash hands during breaks and at the end of the work.

Breathing equipment:

Use respiratory when vapour is formed.

Filter A/P2.

Protection of hands:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Material of gloves

Butyl rubber, BR

Recommended thickness: ≥ 0,5 mm.

Penetration time of glove material

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

Eye protection:



Tightly sealed 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	: Fluid
Colour	: Yellowish
Smell	: Characteristic
Odour threshold	: Not determined.
pH-value	: Mixture is non-polar/aprotic.

Change in condition

Melting point/freezing point	: Not determined
Initial boiling point and boiling range	: 126 °C
Flash point (DIN 51758; SETA CLOSED CUP)	: 27 °C (DIN EN 456)
Inflammability (solid, gaseous)	: Not applicable.
Auto-ignition temperature	: 415 °C
Decomposition temperature	: Not determined.
Self-inflammability	: Product is not selfigniting.
Explosive properties	: Product is not explosive.

Critical values for explosion:

Lower	: Not determined.
Upper	: Not determined.
Steam pressure	: Not determined.
Density (DIN 51757)	: Not determined
Relative density	: Not determined.
Vapour density	: Not determined.
Evaporation rate	: Not determined.

Solubility in / Miscibility with

Water : Not miscible or difficult to mix

Partition coefficient: n-octanol/water : Not determined.

Viscosity:

dynamic : Not determined.

kinematic at 20 °C : 12-15 s (DIN 53211/4)

9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity
10.1 Reactivity

No further relevant information available.

10.2 Chemical stability
Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions

Develops readily flammable gases / fumes

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

Contact with strong oxidizing agents has to be avoided.

10.6 Hazardous decomposition products

No dangerous decomposition products known

SECTION 11: Toxicological information
11.1 Information on toxicological effects

Acute toxicity : Based on available data, the classification criteria are not met.

LD/LC50 values that are relevant for classification:

123-86-4 n-butyl acetate		
Oral	LD50	10,760 mg/kg (rat)
Dermal	LD50	>14,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>21 mg/l (rat)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	LD50	8,500 mg/kg (rat)
Inhalative	LC50/4 h	35.7 mg/l (rat)
78-83-1 2-methylpropan-1-ol		
Oral	LD50	2,460 mg/kg (rat)
Dermal	LD50	4,200 mg/kg (rabbit)
556-67-2 octamethylcyclotetrasiloxane		
Oral	LD50	>4,800 mg/kg (rat)
Dermal	LD50	>2,375 mg/kg (rat)
Inhalative	LC50/4 h	36 mg/l (rat)

Primary irritant effect:

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

123-86-4 n-butyl acetate	
EC10	959 mg/l (Bacteria)
NOEC	23 mg/l (Daphnia) (21 d, Daphnia magna)
EC50	44 mg/l (Daphnia) (Daphnia sp.; 48 h) 675 mg/l (Algae) (Scenedesmus subspicatus; 72 h) 356 mg/l (Bacteria) (40 h; Tetrahymena pyriformis)
LC50	18 mg/l (fish)
108-65-6 2-methoxy-1-methylethyl acetate	
EC10	>1,000 mg/l (Bacteria) (30 min)
EC50	>500 mg/l (Daphnia) (48 h) >1,000 mg/l (Algae) (72 h)
LC50	134 mg/l (fish) (96 h)
78-83-1 2-methylpropan-1-ol	
EC10	750 mg/l (Bacteria) (18 h)
EC50	583 mg/l (Daphnia) 1,250 mg/l (Algae)
LC50	1,430 mg/l (fish)
556-67-2 octamethylcyclotetrasiloxane	
LC50	>3,000 mg/l (fish)

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:

AOX-indication : not relevant

According to recipe contains the following heavy metals and compounds according to EC guideline NO. 76/464 EC:
none

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

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

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation : Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA : UN1866

14.2 UN proper shipping name

ADR : 1866 RESIN SOLUTION

IMDG, IATA : RESIN SOLUTION

14.3 Transport hazard class(es)

ADR



Class : 3 (F1) Flammable liquids.

Label : 3

IMDG, IATA



Class : 3 Flammable liquids.

Label : 3

14.4 Packing group

ADR, IMDG, IATA : III

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Warning: Flammable liquids.

Kemler Number : 30

EMS Number : F-E,S-E

Stowage Category : A

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ) : 5L

Excepted quantities (EQ) : Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

Transport category : 3

Tunnel restriction code : D/E

IMDG

Limited quantities (LQ) : 5L

Excepted quantities (EQ) : Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation" : UN 1866 RESIN SOLUTION, 3, III

SECTION 15: Regulatory information

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

Poisons Act

Regulated explosives precursors
None of the ingredients is listed.
Regulated poisons
None of the ingredients is listed.
Reportable explosives precursors
None of the ingredients is listed.
Reportable poisons
None of the ingredients is listed.

Directive 2012/18/EU

Named dangerous substances - ANNEX I	: None of the ingredients is listed.
Seveso category	: P5c FLAMMABLE LIQUIDS
Qualifying quantity (tonnes) for the application of lower-tier requirements	: 5,000 t
Qualifying quantity (tonnes) for the application of upper-tier requirements	: 50,000 t

National regulations

Information about limitation of use	: none
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Technical instructions (air):

Class	Share in %
NK	50-100

Water hazard class	: Water hazard class 1 (Self-assessment): slightly hazardous for water.
International Listings	: 5-6

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.
H361f	Suspected of damaging fertility.

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H410 Very toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:

Abbreviation	Meaning
ADR	Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
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)
DNEL	Derived No-Effect Level (UK REACH)
PNEC	Predicted No-Effect Concentration (UK REACH)
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
PBT	Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
Flam. Liq. 3	Flammable liquids – Category 3
Skin Irrit. 2	Skin corrosion/irritation – Category 2
Eye Dam. 1	Serious eye damage/eye irritation – Category 1
Eye Irrit. 2	Serious eye damage/eye irritation – Category 2
Repr. 1B	Reproductive toxicity – Category 1B
Repr. 2	Reproductive toxicity – Category 2
STOT SE 3	Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - long-term aquatic hazard – Category 1