

1. Chemical product and company identification

Substance name : VINYBLAN HD-057KM

Recommended use of the chemical and restrictions on use

Recommended use : Coating agent, Binder

Restrictions on use : General industrial use

Company information

Nissin Chemical Industry Co., Ltd.

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2. Hazards identification

GHS classification

| | | |
|------------------|--|-----------------------------|
| Physical hazards | Explosives | classification not possible |
| | Flammable gases | No classification |
| | Aerosol | classification not possible |
| | Oxidizing gases | No classification |
| | Gases under pressure | No classification |
| | Flammable liquids | classification not possible |
| | Flammable solids | No classification |
| | Self-reactive substances and mixtures | classification not possible |
| | Pyrophoric liquids | classification not possible |
| | Pyrophoric solids | No classification |
| | Self-heating substances and mixtures | classification not possible |
| | Substances and mixtures which in contact with water emit flammable gases | classification not possible |
| | Oxidizing liquids | classification not possible |
| | Oxidizing solids | No classification |
| | Organic peroxides | classification not possible |
| | Corrosive to metals | classification not possible |
| Health hazards | Desensitized explosives | classification not possible |
| | Acute toxicity (oral) | classification not possible |
| | Acute toxicity (dermal) | classification not possible |

| | | |
|-----------------------|---|-----------------------------|
| | Acute toxicity (inhalation:gas) | classification not possible |
| | Acute toxicity (inhalation:vapours) | classification not possible |
| | Acute toxicity (inhalation:dust/mist) | classification not possible |
| | Skin corrosion/irritation | classification not possible |
| | Serious eye damage/eye irritation | classification not possible |
| | Respiratory sensitization | classification not possible |
| | Skin sensitization | classification not possible |
| | Germ cell mutagenicity | classification not possible |
| | Carcinogenicity | classification not possible |
| | Reproductive toxicity | classification not possible |
| | Specific target organ toxicity (single exposure) | classification not possible |
| | Specific target organ toxicity (repeated exposure) | classification not possible |
| | Aspiration hazard | classification not possible |
| Environmental hazards | Hazardous to the aquatic environment, short-term (acute) | classification not possible |
| | Hazardous to the aquatic environment, long-term (chronic) | classification not possible |
| | Hazardous to the ozone layer | classification not possible |

Precautionary statements

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|------------|--|
| Prevention | : Avoid release to the environment. (P273) Wear protective gloves, protective clothing, eye protection, face protection. (P280) |
| Response | : Get medical advice/attention if you feel unwell. (P314) |
| Storage | : Store in a well-ventilated place. Keep cool. (P403+P235) |
| Disposal | : Dispose of contents/container in accordance with local/regional/national/international regulations. (P501) |

3. Composition/information on ingredients

| | |
|--|--|
| Distinction of substance or mixture | : Mixture |
| Generic name | : Colloidal dispersion of Vinyl chloride Based Copolymer |

| Name | Concentration (%) | Reference number in the gazette list | | CAS-No. |
|--|-------------------|--------------------------------------|-----------------------------|-------------|
| | | CSDL No | ISHL No | |
| Vinyl chloride based copolymer | 5 - 15 | Undisclosed | Undisclosed | Undisclosed |
| Silica(amorphous) | < 5 | Undisclosed | Undisclosed | Undisclosed |
| Methanol | < 0.3 | (2)-201 | Existing Chemical Substance | 67-56-1 |
| Cyclotetrasiloxane, octamethyl- (Impurity) | < 0.3 | (7)-475 | Existing Chemical Substance | 556-67-2 |
| Cyclopentasiloxane, decamethyl- (Impurity) | < 0.3 | (7)-475 | Existing Chemical Substance | 541-02-6 |
| Water | 80 - 90 | - | - | 7732-18-5 |

4. First aid measures

First aid measures

First-aid measures after inhalation : Remove the sufferers to fresh air places and keep themselves rest in an easy-to- breath position. Get medical advices immediately.

First-aid measures after skin contact : Take off contaminated clothes, shoes and socks. And wash sticking parts off with soap and plenty of water. If the external changes are observed or the symptoms such as irritation or itchy appears, get medical advices immediately.

First-aid measures after eye contact : Rinse immediately inner side of eyelid with plenty of water more than 20 minutes. Remove the contact lenses if possible. Get medical advices.

First-aid measures after ingestion : Rinse mouth thoroughly with water and get medical attention immediately.
Never give anything through mouth to an unconscious person.

5. Fire fighting measures

Suitable extinguishing media : Water and alkali salt, Fire foam, Dry chemical, Water mist.

Unsuitable extinguishing media : Nothing in particular

Fire hazard

Fire hazard : This product itself is not a flammable compound. But dry film after evaporating water is flammable.
Carbon monoxide, hydrogen chloride, etc. may be generated

Hazardous decomposition products in case of fire : under fire conditions.
: In case of fire, hazardous decomposition products may be produced such as:Hydrogen chloride gas, Chlorocarbons, Carbon monoxide, carbon dioxide and residue of hydrocarbons.

Firefighting instructions

Firefighting instructions : Cut off ignition sources to a fire origin and fight a fire employing a suitable fire extinguishing agent.
Cool by water spray around the fire site to prevent the fire extension.

Personal protection (Emergency response)

Personal protection (Emergency response) : Wear suitable protective tools such as goggles, boots, gloves, and body suits as well as a self-contained breathing apparatus to avoid direct contact. Fight a fire from the windward.

Other information : One of the general procedures for chemical fires may be applied. Use appropriate extinguishing measures considering the local circumstances and environments. Never inhale such smoke, etc. as are generated at fire and/or explosion. Use water spray to cool unopened containers. Recover the water contaminated with fire extinguishing agents separately. Never discharge this water into drains. Fire residues and contaminated fire extinguishing water must be disposed of complying with local regulations.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures : Wear a self-contained breathing apparatus and suitable chemical protective clothes and tools, and work from windward.

For emergency responders

Protective equipment : Wear suitable protective tools such as goggles, boots, gloves, body suits and a self-contained breathing apparatus according to circumstances to avoid inhalation of and direct contact with materials in question.

Emergency procedures : Clear off all of ignition sources immediately.
Work from windward.
Stop release.

Environmental precautions

Environmental precautions : Never release this products to waters and soil.
If the products spill into rivers, lakes or marshes, inform the fire station or authorities of the local governments.

Methods and Equipment for Containment and Cleaning up

- For containment : When the releasing materials are large, prevent spreading by cover with banking and the like and vacuum and recover with a pump,etc.
When the releasing materials are small, recover as mortar after mix with perlite, dirt, sawdust and/or the like.
- Methods for cleaning up : Clean up the surroundings of the releasing area with water after recovery and recover the contaminated water as well.
- Prevention Measures for Secondary Accidents : If the products spill into rivers, lakes or marshes, inform to the fire stations, authorities relating environment disruption, River Bureau, Water Supply Bureau, etc. of local governments, if necessary.
- Other information : Take care of slip as released area becomes easy to slip.

7. Handling and storage

Handling

- Technical measures : As polyvalent metal ions such as iron, copper, zinc, aluminum, etc. may cause collering, gelling, etc, pay care and attention for choice of storage installations, pipework, blenders and the like.
Use in well-ventilated areas.
- Precautions for safe handling : Wear suitable personal protecting tools such as protecting gloves, protecting glasses, etc. according to circumstances to avoid to contact with skin or eye(s).
Never treat containers roughly such as overturning, falling, dragging, impacting and the like.
- Prevents handling of incompatible substances or mixtures : No information.
- Hygiene measures : Wash hands at the end of each work shift before eating, smoking or using the toilet.
Never eat, drink nor smoke during work.
- Local and general ventilation : In case of the work with generation of spray mist or vapor, install local air exhausters.

Storage

- Storage conditions : Storage temperature must be kept not less than 5°C and never exceed 35°C.
Store indoor, preventing from sunlight and freezing.
Avoid dust, water, etc. coming into opened containers in use.
- Material used in packaging/containers : Use the containers having water resistance and durability, and avoid from contact with metals as possible.
In case of translocation, use stainless or polyethylene containers

- to prevent corrosion.
- Technical measures : Keep containers stoppled tightly after use to prevent forming film.
- Incompatible materials : Strong oxidizers. Reactive metals. (sodium,calcium, zinc, etc.).
Dehydrating agent.

8. Exposure controls / Personal protection equipment

| Methanol (67-56-1) | |
|--|---|
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 200 ppm |
| ACGIH OEL STEL | 250 ppm |
| ACGIH chemical category | Skin - potential significant contribution to overall exposure by the cutaneous route |
| USA - ACGIH - Biological Exposure Indices | |
| BEI | 15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift (background, nonspecific) |
| Japan - Occupational Exposure Limits | |
| Japan administration level | 200ppm |
| Exposure limits (JSOH) | 200ppm(260mg/m3)(skin) |
| Exposure limits (ACGIH) | TWA 200 ppm,STEL 250 ppm (Skin) |

- Appropriate engineering controls : Install sealing equipments or local exhaust equipments at indoor work, Express the place clearly where safety shower(s) and hand and eye washer(s) are equipped.

Protective equipment

- Respiratory protection : It is needless under normal conditions at well ventilated place, In case of insufficient ventilation, wear suitable respiratory equipment
- Hand protection : Impermeable protect gloves.
- Eye protection : goggles style protective glasses
- Skin and body protection : Protective boots, protective clothes.

9. Physical and chemical properties

- Physical state : Liquid
- Colour : milky
- Odour : No data available
- pH : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : ≈ 100 °C
- Flash point : Nothing

| | | |
|---|---|---------------------|
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Flammability | : | No data available |
| Vapour pressure | : | No data available |
| Relative vapour density at 20°C | : | No data available |
| Relative density | : | No data available |
| Density | : | No data available |
| Relative gas density | : | No data available |
| Solubility | : | Miscible with water |
| Partition coefficient n-octanol/water (Log Pow) | : | No data available |
| Explosive limits (vol %) | : | No data available |
| Explosive limits (g/m ³) | : | No data available |
| Viscosity, kinematic | : | No data available |
| Particle size | : | No data available |

10. Stability and reactivity

| | | |
|------------------------------------|---|--|
| Reactivity | : | No reactivity with water |
| Chemical stability | : | Stable under room temperature. |
| Possibility of hazardous reactions | : | No information |
| Conditions to avoid | : | No information |
| Incompatible materials | : | No information |
| Hazardous decomposition products | : | In case of fire, hazardous decomposition products may be produced such as:Hydrogen chloride gas, Chlorocarbons, Carbon monoxide, carbon dioxide and residue of hydrocarbons. |

11. Toxicological information

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|---|---|----------------|-------------------|
| Acute toxicity (oral) | : | (as a product) | No data available |
| Acute toxicity (dermal) | : | (as a product) | No data available |
| Acute toxicity (gas) - Description | : | (as a product) | No data available |
| Acute toxicity (vapour) - Description | : | (as a product) | No data available |
| Acute toxicity (dust, mist) - Description | : | (as a product) | No data available |
| Acute toxicity (mist) - Description | : | (as a product) | No data available |

| | | |
|-------------------------------|------------------|-------------------|
| Skin corrosion/irritation | : (as a product) | No data available |
| Serious eye damage/irritation | : (as a product) | No data available |
| Respiratory sensitization | : (as a product) | No data available |
| Skin sensitization | : (as a product) | No data available |
| Germ cell mutagenicity | : (as a product) | No data available |
| Carcinogenicity | : (as a product) | No data available |
| Reproductive toxicity | : (as a product) | No data available |
| STOT-single exposure | : (as a product) | No data available |
| STOT-repeated exposure | : (as a product) | No data available |
| Aspiration hazard | : (as a product) | No data available |

12. Ecological information

Ecotoxicity

| | | |
|---|--|-------------------|
| Ecotoxicity | : (as a product) | No data available |
| Hazardous to the aquatic environment, short-term (acute) | : (as a product) | No data available |
| Hazardous to the aquatic environment, long-term (chronic) | : (as a product) | No data available |
| Other information | : It should not be allowed for the product to be run into drains, water courses or the soil. | |

Persistence and degradability

| | | |
|---------------------------------|------------------|-------------------|
| Persistence and degradability | : (as a product) | No data available |
| Biochemical oxygen demand (BOD) | : (as a product) | No data available |
| Chemical oxygen demand (COD) | : (as a product) | No data available |

Bioaccumulative potential

| | | |
|---|------------------|-------------------|
| Bioaccumulative potential | : (as a product) | No data available |
| Partition coefficient n-octanol/water (Log Pow) | : (as a product) | No data available |

Mobility in soil

Mobility in soil : (as a product) No data available
 Partition coefficient n-octanol/water (Log Pow) : (as a product) No data available
 Ecology - soil : (as a product) No data available

Hazardous to the ozone layer

Ozone : (as a product) No data available
 Other adverse effects : No additional information available

13. Disposal considerations

Ecological waste information : Farm out to professional disposal treating traders in compliance with requirements of the nation and local governments.

Contaminated container and packaging : Farm out dispose of the contents and packing materials to professional disposal treating traders in compliance with requirements of the nation and local governments.
 In case of disposal of empty container, dispose after complete removal in the container.

14. Transport information

International Regulations

Transport by sea(IMDG)

UN-No. (IMDG) : Not applicable
 Proper Shipping Name (IMDG) : Not applicable
 Packing group (IMDG) : Not applicable
 Transport hazard class(es) (IMDG) : Not applicable

Air transport(IATA)

UN-No. (IATA) : Not applicable
 Proper Shipping Name (IATA) : Not applicable
 Packing group (IATA) : Not applicable
 Transport hazard class(es) (IATA) : Not applicable

Regulations in Japan

Other information : At transportation, make sure of no leakage of packings, load the products without broken bags, falling, injury, etc, and prevent load collapses surely, See "7 Handling and storage"

15. Regulatory information

REACH SVHC : Contains a substance on the REACH candidate list in concentration $\geq 0.1\%$: Cyclotetrasiloxane, octamethyl- (EC 209-136-7, CAS 556-67-2), Decamethylcyclopentasiloxane (CAS 541-02-6)
Contains substance(s) listed on the REACH Candidate List $< 0.1\%$ or SCL.

16. Other information

Data sources : Ref. 1."Safety Data Sheet" by Raw Material Manufacturers.
2.GHS Sixth Revised Edition. 3.NITE GHS Results of the Classification.

Other information : The description of this SDS is based upon materials, information and data which can be procured at present. However, we do not warrant any guarantee regarding the contents, physical and chemical properties, hazards and the like. The Products was developed for general industries' use. When applying to specific uses, it is hoped to confirm its safety by yourselves prior to the use.

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