# JNC CORPORATION

Issue Date : September/25/2009 Revised Date : Mar./07/2016

# SAFETY DATA SHEET

### 1. Chemical product and company identification

Product Name: VINYLEC

Reference No.: CPS-C-0005M Supplier's data: JNC Corporation

Address: Shin-Otemachi Bldg., 2-1, Otemachi 2-chome, Chiyoda-ku,

Tokyo 100-8105, Japan

Section: Chemicals Division
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Recommended use of the chemical and restrictions on use.

: Vanish for windings, Adhesives, Polymer alloys, Composite material

### 2. Hazards Identification

**GHS** classification

Physical and Chemical hazards

Explosives:

Flammable gases:

Out of classification object
Out of classification object
Out of classification object
Oxidizing gases:

Out of classification object

Flammable solids: Not classified

Self-reactive substances and mixtures: Out of classification object Pyrophoric liquids: Out of classification object

Pyrophoric solids: Not classified Self-heating substances and mixtures: Not classified Substances and mixtures which, in contact with water,

emit flammable gases:
Oxidizing liquids:
Oxidizing solids:
Organic peroxides:
Out of classification object
Out of classification object
Out of classification object

Corrosive to metals: Not classified

Health hazards

Acute toxicity

Oral: Classification not possible Dermal: Classification not possible

Inhalation

Gases:
Vapors:
Classification not possible
Dusts:
Classification not possible

Serious eye damage/Eye irritation:

Classification not possible

Classification not possible

Classification not possible

Sensitization-Skin: Not classified

Germ cell Mutagenicity:

Carcinogenicity:

Classification not possible

Classification not possible

Classification not possible

Classification not possible

Specific target organ systemic toxicity

Single exposure: Classification not possible Repeated exposure: Classification not possible Aspiration toxicity: Classification not possible

Environmental hazards

Hazardous to the aquatic environment

Acute hazard: Classification not possible Chronic hazard: Classification not possible

Label element

Pictograms or Symbols: None Signal word: None

Hazard statement:

Dust explosion possible if in powder or granular form, mixed with air.

### 3. Composition/information on ingredients

Substance

Chemical name: Polyvinyl formal resins

Synonyms: Acetic acid ethenyl ester, polymer with ethenol and

1,1'-[methylenebis(oxy)]bis[ethene]

Chemical Formula:

 $\begin{pmatrix} -CH_2-CH-CH_2-CH- \\ \setminus \\ O-CH_2-O \end{pmatrix} \times \begin{pmatrix} CH_2-CH- \\ \mid \\ OH \end{pmatrix} y \begin{pmatrix} CH_2-CH- \\ \mid \\ OCOCH_3 \end{pmatrix} z$ 

vinyl formal vinyl alcohol vinyl acetate about 81% 5.0-6.5% 9.5-13.0%

CAS No.: 63450-15-7
MITI No.: (6)-716

EINECS No.: Not applicable

Impurities and stabilizing additives which are themselves classified and which contribute to the

classification of the substance.: There is no information.

Composition: More than 99% by weight

### 4. First aid measures

#### IF INHALED:

Remove to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

#### IF ADHERES TO THE SKIN:

Remove/take off immediately all contaminated clothing.

Rinse skin with water/shower.

If skin irritation occurs, seek medical advice/attention.

#### IF ADHERES TO THE EYE:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists, get medical advice/attention.

#### IF SWALLOWED:

Rinse mouth.

Call a POISON CENTER or doctor/physician if you feel unwell.

Expected acute symptoms and delayed symptoms

No data available.

Most important symptoms and effects:

No data available.

Protection of first-aid providers:

According to conditions, use suitable protective equipment (e.g. chemical cartridge respirator with acidic gases cartridge).

Special notes to a physician:

No data available.

# 5. Fire-fighting measures

#### Suitable extinguishing media

Small fire:

Carbon dioxide, dry chemical powder, sprinkling, alcohol-resistant foam.

Conflagration:

Sprinkling, water spray, alcohol-resistant foam.

Unsuitable extinguishing media:

Straight streams.

Specific hazards:

During a fire, irritating, toxic, corrosive gases may be generated by thermal decomposition or combustion.

#### Specific methods of fire-fighting:

When a fire might spread by sprinkling adversely, among extinguishing media to show as above, use appropriate extinguishing media except the sprinkling.

Move containers from fire area if you can do it without risk.

If the containers cannot be moved, sprinkle the containers and the surrounding area with water to cool it.

#### Protection of firefighters:

When fighting the fire, you should wear protective equipment (i.e., respiratory apparatus, chemical protection suit, etc.) as needed to avoid inhaling and/or contacting the chemical substance.

### 6. Accidental release measures

Personal precautions, protective equipment and emergency measures:

You should wear protective equipment (See "8. Exposure controls/ personal protection".) as needed to avoid contact to eyes and skin and/or inhalation of the gas.

Do not touch or walk through spilled material.

Isolate appropriate distance promptly as a leak area in all directions.

Keep unauthorized personnel away.

Stay upwind.

Keep out of low areas.

Ventilate closed spaces before entering.

#### Environmental precautions:

Prevent entry into waterways, sewers, basements or confined areas.

Attention should be given not to cause damage to the environment by flowing of spillage to rivers.

#### Recovery and neutralization:

Vacuum or sweep up spilled substance into containers.

Avoid creating dust cloud as VINYLEC dispersed in air could present a potential dust explosion hazard.

Use vacuum equipment designed specifically for handling combustible dust.

Method and materials for containing and cleaning up:

All equipment used when handling the product must be grounded.

#### Secondary hazards:

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Notify the departments and divisions concerned of the accident and ask them for help.

### 7. Handling and storage

#### Handling

#### Technical measures:

Wear protective equipment (i.e., chemical protection suit, gloves, goggles, mask, etc.) that is specifically recommended by the manufacturer.

In areas where you handle the chemical substance, do not use anything that can produce fire, a spark, or an arc or a high-temperature ignition source. - No smoking.

Take engineering measures and wear protective equipment specified under "8. Exposure controls/ personal protection".

Perform an anti-static electricity measure. The work wears and the work shoes must use the one of electro conductive.

Electric equipment in the storage area should be provided with an explosion-proof structure. All equipment should be earthed.

#### Local and general ventilation:

Take engineering measures specified under "8. Exposure controls/ personal protection" for good ventilation.

#### Safe handling advice:

Avoid contact with skin and inhalation or ingestion.

#### Avoidance of contact:

See "10. Stability and reactivity".

#### Storage:

#### Technical measures:

Keep away from ignition sources such as heat/sparks/open flame. - No smoking.

Keep container tightly closed and store in a well-ventilated place.

Storage conditions:

Store in a cool, well-ventilated place.

Keep away from sunlight and store in a cool and dark place.

Keep away from heat, combustible materials.

Incompatible products:

See "10. Stability and reactivity".

Packaging materials:

There are especially no improper packaging materials.

### 8. Exposure controls/personal protection

#### Control parameters

Concentration level permitted under Industrial Safety and Health Law

Administrative Control Level: Not established.

Occupational exposure limit value

Japan Society for Occupational Health and ACGIH does not establish occupational exposure limit value of this substance, however it is thought that it is appropriate to apply the following value.

Japan Society for Occupational Health (OEL, 2007Ed.):

8mg/m³ (Total dust, Class 3, Inorganic and organic dusts other than Classes 1 and 2) ACGIH (TLV-TWA, 2005Ed.):

10mg/m<sup>3</sup> (total dust)

#### Engineering measures:

Use explosion-proof electrical/ventilating/lighting equipment specified by manufacturer.

Take precautionary measures against static discharge.

Install an airtight cover for the source of the dust and gas or a local ventilation system.

Safety shower and eye-washing facilities should be installed close to the handling area.

#### Personal protective equipment

Respiratory protection:

Dust respirator, airline respirator, respiratory apparatus.

Hand protection:

Protective gloves.

Eye protection:

Protective glasses, protective goggles.

Skin and body protection:

Protective suit.

#### Hygiene measures:

The protective equipment should be checked periodically using a protective equipment checklist. Wash your hands thoroughly after handling.

### 9. Physical and chemical properties

Appearance: White to light yellow powder.

Odour: None

pH: No data available. Melting point and freezing point: No data available.

Boiling point, initial boiling point and boiling range:

No data available.

Flash point: No data available.

**Explosion Limit** 

dust explosion lower limit: 1)

-200 Mesh (grain size  $< 74\mu m$ ) 80mg/L +200 Mesh (grain size  $> 74\mu m$ ) 750mg/L product grain (12 Mesh pass, grain size  $< 1410\mu m$ ) 1000mg/L

minimum ignition energy:

-200 Mesh

76 mj (dust concentration; 1200mg/L) 80 mj (dust concentration; 800mg/L) 150 mj (dust concentration; 500mg/L)

\*Mesh; The Tyler Standard Screen Sieves

Vapor pressure: No data available. Vapor density: No data available.

Specific gravity: 1.1-1.3 (true specific gravity)

Solubility: Insoluble in water.

Soluble in glacial acetic acid, furfural, tetrahydrofuran

and others.

n-octanol/water partition coefficient:

Spontaneous ignition temperature:

Decomposition temperature:

Odour threshold value:

Evaporation rate:

No data available.

Other data

Viscosity: No data available.

### 10. Stability and reactivity

Reactivity:

No data available.

Stability:

Stable under normal handling and storage conditions.

Hazardous reaction potential:

No dangerous reaction known under conditions of normal use.

Conditions to avoid:

Heat, contact with fire sources.

Incompatible products:

None.

Hazardous decomposition products:

In case of fire or thermal decomposition production of toxic gases (carbon monoxide, carbon dioxide, formaldehyde, acetic acid, acrolein).

### 11. Toxicological information

Acute toxicity:

Oral (rat) non-toxic <sup>2)</sup>
Dermal (rabbit) slightly toxic <sup>2)</sup>

Skin corrosion property/stimulativeness:

No reactions were observed in the skin irritation test with the rabbit <sup>2)</sup>.

Critical damage and stimulativeness to eye:

Slight eye irritation was observed in the eye irritation test with the rabbit. 2)

Respiratory organs sensitization or skin sensitization

Respiratory organs sensitization:

No data available.

Skin sensitization:

The skin sensitization was not identified in the humans.

Generative cell mutagenicity:

No data available.

Carcinogenicity:

No data available.

Reproductive toxicity:

No data available.

Specified target organ/general toxicity-single exposure

No data available.

Specified target organ/general toxicity-repetitive exposure:

No data available.

Aspiration respiratory organs hazard:

No data available.

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available.

Numerous measures of toxicity:

No data available.

Whether the hazardous chemical is listed by NTP, IARC, or OSHA as a carcinogen:

No data available.

### 12. Ecological information

Ecotoxicity:

No data available.

Persistence/degradability:

No data available.

Bioaccumulation:

No data available.

Mobility in soil:

No data available.

Information on other hazardous effect:

No data available.

# 13. Disposal considerations

Residual waste:

Any disposal practice must be in compliance with country, local, and federal laws and regulations. Burn in a chemical incinerator equipped with an afterburner and a scrubber.

When you consign disposal of waste, should be consigned to the industrial waste disposal trader who obtains authorization of the administrative divisions governor etc. after risks and the hazardous property are notified enough.

Contaminated containers or packaging:

Recycle containers after cleaning or dispose them according to relevant legislation as well as

standards in local governments.

Empty containers should be disposed of after completely removing their contents.

### 14. Transport information

International regulations:

UN number: non-correspondence
UN classification: non-correspondence
Ocean contaminant: non-correspondence

Special safety measures:

When transporting containers, be sure that they are fastened tight. An appropriate buffer material should be placed between them to prevent them from bumping each other and being damaged during transport.

### 15. Regulatory information

US Federal TSCA: This product is listed on the TSCA inventory. (CAS No.63450-15-7)

SARA Title III 313: Not listed

State California Proposition 65: Not listed

European Regulations: EINECS polymer (all chemical listed)

Canada: This product is listed on DSL. Australia This product is listed on AICS.

Japan: This product is listed on ENCS (6-716)

China: This product is listed on IECSC.

Taiwan: This product is listed on Taiwan ECSI. Korea: This product is listed on ECL. (KE-35323)

Philippine: This product is listed on PICCS

Follow relevant national and local regulations.

## 16. Other information

#### Reference:

- 1) JNC CORPORATION technical report.
- 2) MONSANTO COMPANY technical report.

The information herein is given in good faith, but no warranty, Expressed or implied, is made. If you have any questions, please contact JNC Corporation.