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

- **Product identifier**
  - **Trade name:** Vinyl Acetate-Ethylene Copolymer Emulsion (VAE)
  - **Applicable Models:** DA-102

- **Synonyms:**
  - VAE emulsion, EVA emulsion, VAE dispersion, EVA dispersion, Ethylene-vinyl acetate copolymer emulsion, Vinyl acetate-ethylene copolymer dispersion, Ethylene-vinyl acetate copolymer dispersion

- **CAS Number:**
  - The CAS No. of vinyl acetate-ethylene copolymer component is 24937-78-8, and is the same as ethylene-vinyl acetate copolymer.

- **Relevant identified uses of the substance or mixture and uses advised against:**
  - **Identified/Recommended uses:**
    - Adhesive
    - Sealant
    - Building and construction preparations

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    - Dairen Chemical Corporation
    - 9th Fl., No. 301, SongJiang Rd.
    - Taipei City, 10483, TAIWAN
    - Tel: +886-2-7743-1500 Fax: +886-2-2509-9619
    - www.dcc.com.tw
  - **Further information obtainable from:** Respective plant’s environmental, health, and safety (EHS) Dept.
  - **Emergency telephone number:** +886-2-7743-1500 (08:30-17:30; GMT+8)

2 Hazards identification

- **Classification of the substance or mixture**
  - Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
  - **GHS label elements**
    - The product is classified and labelled according to the Globally Harmonised System (GHS).

- **Hazard pictograms**
  - GHS07

- **Signal word** Warning

- **Hazard-determining components of labelling:**
  - 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone

- **Hazard statements**
  - May cause an allergic skin reaction.

- **Precautionary statements**
  - Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. Dispose of contents/container in accordance with local/regional/national/international regulations.
3 Composition/information on ingredients

- **Chemical characterisation:** Mixtures
- **Description:** Mixture: consisting of the following components.

<table>
<thead>
<tr>
<th><strong>Dangerous Components:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>55965-84-9 13(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone</td>
<td>≤ 0.0030%</td>
</tr>
<tr>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317</td>
<td></td>
</tr>
<tr>
<td>108-05-4 vinyl acetate</td>
<td>&lt;0.5%</td>
</tr>
<tr>
<td>Flam. Liq. 2, H225; Carc. 2, H351; Acute Tox. 4, H332; STOT SE 3, H335; Acute Tox. 5, H303; Aquatic Chronic 3, H412</td>
<td></td>
</tr>
</tbody>
</table>

- **Non-Hazardous Component(s):**

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl acetate-ethylene copolymer</td>
<td>24937-78-8</td>
<td>≥55%</td>
</tr>
</tbody>
</table>

4 First aid measures

- **Description of first aid measures**
  - **General information:** First aider needs to protect himself.
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:** Rinse cautiously with water for several minutes.
  - **After eye contact:** Rinse opened eye for 15 minutes under running water. If symptom persists consult a doctor.
  - **After swallowing:** Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

- **Most important symptoms and effects, both acute and delayed**
  No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**
  Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5 Firefighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents:**
    This product is non-flammable under normal circumstances. Dried-up substance, however, is combustible. CO2, powder, foam, water, or water spray can be used to extinguish fire. Water jet can also be used in scenario of non-liquid combustion.
  - **For safety reasons unsuitable extinguishing agents:** None

- **Special hazards arising from the substance or mixture**
  Combustion of dried-up substance will release carbon oxides (CO, CO2).

- **Advice for firefighters**
  Use water spray to cool unopened containers.

- **Protective equipment:**
  If necessary, wear fully protective suit and air respirator.

- **Additional information**
  Avoid contact with skin, eye, and clothing.
  Do not inhale explosion gases or combustion gases.
6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
  - Ensure adequate ventilation
- **Environmental precautions**: Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up**:
  - Collect, bind, and pump of spills.
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Allow to solidify. Pick up mechanically.
- **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 disposal information.

7 Handling and storage

- **Precautions for safe handling**
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection**: The product is not flammable.
- **Storage**:
  - Requirements to be met by storerooms and receptacles:
    - Store in cool, dry place in tightly closed receptacles.
  - **Further information about storage conditions**: Store at 5 °C to 40 °C

8 Exposure controls/personal protection

- **Additional information about design of technical facilities**:
  - Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines.
  - If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
  - Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
- **Control parameters**
  - **Ingredients with limit values that require monitoring at the workplace**: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
  - **Personal protective equipment**:
  - **General protective and hygienic measures**: Wash hands before breaks and at the end of work.
- **Respiratory protection**:
  - Not necessary if room is well-ventilated.
  - Use suitable respiratory protective device in case of insufficient ventilation.
  - Short term filter device:
    - Filter A/P2
- **Protection of hands**:
  - Protective gloves
The selected protective gloves have to satisfy the specifications of standard EN 374 or its equivalent.
Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
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.

- **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:**
Safety glasses with side shields conforming to EN166, ANSI 87.1-2010, or equivalent.

- **Body protection:**
Protective work clothing
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

  - **General Information**
  
  - **Appearance:**
  
  - Form: Liquid Emulsion
  - Colour: Whitish
  - Odour: faint
  - Odour threshold: Not determined.
  
  - **pH-value:**
  
  - 4.5-6.5

  - **Change in condition**
  
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
  
  - **Flash point:**
  
  - Not applicable.

  - **Flammability (solid, gaseous):**
  
  - Not determined.

  - **Ignition temperature:**
  
  - Decomposition temperature: Not determined.

  - **Self-igniting:**
  
  - Product is not selfigniting.

  - **Danger of explosion:**
  
  - Product does not present an explosion hazard.

  - **Explosion limits:**
  
  - Lower: Not determined.
  - Upper: Not determined.

  - **Vapour pressure:**
  
  - Not applicable.

  - **Density:**
  
  - 1.07 g/cm³
39.6.4

· Relative density: Not determined.
· Vapour density: Not applicable.
· Evaporation rate: Not applicable.
· Solubility in / Miscibility with water: Fully miscible.
· Partition coefficient (n-octanol/water): Not determined.
· Viscosity: 2500-3700 cP
· Dynamic: Not applicable.
· Kinematic: Not applicable.
· Solvent content: Organic solvents: <0,5 %
· Other information: No further relevant information available.

10 Stability and reactivity

· Reactivity: When properly handled and stored, no dangerous reaction is known.
· Chemical stability: This product is stable under prescribed use and storage.
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Possibility of hazardous reactions: No dangerous reactions known.
· Conditions to avoid: Protect from heat. Keep ignition sources away.
· Incompatible materials: Strong oxidizing agents
· Hazardous decomposition products: Carbon monoxide (CO) and carbon dioxide (CO₂)

11 Toxicological information

· Information on toxicological effects
· Acute toxicity: Not classified based on available data.
· Skin corrosion/irritation: Not classified based on available data.
· Serious eye damage/eye irritation: Not classified based on available data.
· Respiratory or skin sensitization: May cause an allergic skin reaction.
· Contributing component: Biocide/fungicide (CAS No 55965-84-9)
· Germ Cell Mutagenicity: Not classified based on available data.
· Carcinogenicity: Not classified based on available data.
· This product contains an impurity, vinyl acetate (CAS No. 108-05-4). IARC classified vinyl acetate as carcinogen Group 2B (Possibly carcinogenic to humans). The concentration of the impurity is below classifying threshold of 1,0 %.
· Reproductive Toxicity: Not classified based on available data.
· Specific Target Organ Toxicity - Single Exposure (STOT SE): Not classified based on available data.
· Specific Target Organ Toxicity - Repeated Exposure (STOT RE): Not classified based on available data.
· Aspiration Hazard: Not classified due to lack of data.
· Primary irritant effect:
· on the skin: No irritating effect.
· on the eye: No irritating effect.
· Sensitisation: Sensitisation possible through skin contact.
12 Ecological information

- **Toxicity**
- **Aquatic toxicity**: Not classified based on available data.
- **Persistence and degradability**: No further relevant information available.
- **Bioaccumulative potential**: No further relevant information available.
- **Mobility in soil**: No further relevant information available.
- **Additional ecological information**:
  - **General notes**:
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects**: No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation**:
    On the basis of the necessary technical regulations and after consultation with the disposal agent and the relevant authorities, can be disposed of with domestic waste or incinerated with domestic waste.
    Smaller quantities can be disposed of with household waste.
    Any disposal method should also comply with national, regional, provincial, and local laws.
- **Uncleaned packaging**:
  - **Recommendation**:
    Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
    Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
  - **ADR, ADN, IMDG, IATA**: None (Not Regulated)
- **UN proper shipping name**
  - **ADR, ADN, IMDG, IATA**: None (Not Regulated)
- **Transport hazard class(es)**
  - **ADR, ADN, IMDG, IATA**: None (Not Regulated)
- **Class**
  - **ADR, ADN, IMDG, IATA**: None (Not Regulated)
- **Packing group**
  - **ADR, IMDG, IATA**: None (Not Regulated)
- **Environmental hazards**: None (Not Regulated)
- **Marine pollutant**: No
- **Special precautions for user**: Not applicable.
- **UN "Model Regulation"**: -

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Status of global inventories**:
  - **All component(s) within this product is listed or exempted from the following country’s chemical inventory**:
    - USA - TSCA
    - Australia - AICS
Trade name: Vinyl Acetate-Ethylene Copolymer Emulsion (VAE)

(Contd. of page 6)

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

· Abbreviations and acronyms:
  - ADR: Accord européen sur le transport 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
  - 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)
  - Flam. Liq. 2: Flammable liquids, Hazard Category 2
  - Acute Tox. 3: Acute toxicity, Hazard Category 3
  - Acute Tox. 5: Acute toxicity, Hazard Category 5
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
  - Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
  - Carc. 2: Carcinogenicity, Hazard Category 2
  - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  - Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
  - Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
  - Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· Sources
  - Most toxicological and eco-toxicological data are obtained from European Chemical Agency (ECHA)'s public dissemination website.

· General Disclaimers:
  - DCC Group recommends that all the users/customers/recipient to study this Safety Data Sheet (SDS) carefully and understand all the data or any potential hazards associated with this product. Please consult with appropriate expert if necessary. The information herein is provided in good faith and is believed to be accurate on the date of issue. No warranty, express or implied, is given. It is the customer’s/user’s responsibility to ensure that they are complying with local, regional, state, provincial, and/or national laws in using this product, as regulatory requirement may differ at each level. It is also the customer’s/user’s responsibility to determine the necessary condition required for using this product safely, as actual operating or usage conditions are beyond DCC Group's control. DCC Group will not be responsible for any SDS obtained from elsewhere other than from DCC Group. If you are unsure whether the SDS you have is current or have obtained the SDS from another source; please contact us to obtain the latest version.

GHS