

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Revision date** 12-Dec-2022  
 Revision Number 1.02

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

|                     |                          |
|---------------------|--------------------------|
| <b>Product Name</b> | Carboxyvinyl Polymer 105 |
| <b>Product Code</b> | 356-45611                |

|   |   |
|---|---|
| <b>Manufacturer</b>                             | FUJIFILM Wako Pure Chemical Corporation<br>1-2 Doshomachi 3-Chome<br>Chuo-ku, Osaka 540-8605, Japan<br>Phone: +81-6-6203-3741<br>Fax: +81-6-6203-5964 |
| <b>Supplier</b>                                 | FUJIFILM Wako Pure Chemical Corporation<br>1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan<br>Phone: +81-6-6203-3741<br>Fax: +81-6-6203-2029   |
| <b>Emergency telephone number</b>               | +81-6-6203-3741 / +81-3-3270-8571   |
| <b>Recommended uses and restrictions on use</b> | For research use only   |

## Section 2: HAZARDS IDENTIFICATION

**GHS classification****Classification of the substance or mixture****Carcinogenicity**

Category 2

**Specific target organ toxicity (repeated exposure)**

Category 1

Category 1 respiratory system

**Pictograms****Signal word**

Danger

**Hazard statements**

H351 - Suspected of causing cancer

H372 - Causes damage to the following organs through prolonged or repeated exposure: respiratory system

**Precautionary statements-(Prevention)**

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product

**Precautionary statements-(Response)**

- IF exposed or concerned: Get medical advice/attention

**Precautionary statements-(Storage)**

- Store locked up

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

Other hazards Not available

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Single Substance or Mixture Substance

| Chemical Name      | Weight-% | Molecular weight | ENCS    | ISHL No.  | CAS RN    |
|--------------------|----------|------------------|---------|-----------|-----------|
| Poly(acrylic acid) | 99       | N/A              | (6)-898 | *         | 9003-01-4 |
| 1,2-Dichloroethane | <1       | 98.96            | (2)-54  | 2-(13)-23 | 107-06-2  |

Note on ISHL No.: \* in the table means announced chemical substances.

Impurities and/or Additives: residue, 1,2-Dichloroethane &lt; 1 %

**Section 4: FIRST AID MEASURES****Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

**Ingestion**

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**

Use personal protective equipment as required.

**Section 5: FIRE FIGHTING MEASURES****Suitable extinguishing media**Water spray (fog), Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder, Sand**Unsuitable extinguishing media**

No information available

**Specific hazards arising from the chemical product**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Special extinguishing method**

No information available

**Special protective actions for****fire-fighters**

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

**Section 6: ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

**Environmental precautions**

To be careful not discharged to the environment without being properly handled waste water contaminated.

**Methods and materials for contaminant and methods and materials for cleaning up**

Sweep up and gather scattered particles, and collect it in an empty airtight container.

**Recoverly, neutralization**

No information available

**Secondary disaster prevention measures**

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

**Handling****Technical measures**

Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

**Precautions**

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle In places other than those specified, should not be smoking or eating and drinking Should not be brought contaminated protective equipment and gloves to rest stops Deny unnecessary entry of non-emergency personnel to the handling area

**Safety handling precautions**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**Storage****Safe storage conditions****Storage conditions**

Keep container protect from light, store in well-ventilated place at room temperature (preferably cool). Keep container tightly closed.

**Safe packaging material**

Polyethylene

**Incompatible substances**

Strong oxidizing agents

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

**Exposure limits**

| Chemical Name                   | JSOH (Japan)   | ISHL (Japan)     | ACGIH              |
|---------------------------------|--|------------------|--------------------|
| Poly(acrylic acid)<br>9003-01-4 | N/A  | N/A              | TW A 10ppm (アクリル酸) |
| 1,2-Dichloroethane<br>107-06-2  | TWA: 10 ppm OEL<br>TWA: 40 mg/m <sup>3</sup> OEL<br>ISHL/ACL: 10 ppm | ISHL/ACL: 10 ppm | TWA: 10 ppm        |

**Personal protective equipment****Respiratory protection**

Dust mask

**Hand protection**

Protection gloves

**Eye protection**

protective eyeglasses or chemical safety goggles

**Skin and body protection**

Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Form****Color**

white

**Appearance**

powder

**Odor**

Odorless or slight peculiar odor

**Melting point/freezing point**

no data available

**Boiling point, initial boiling point and boiling range**

no data available

**Flammability**

no data available

**Evaporation rate:**

no data available

**Flammability (solid, gas):**

no data available

**Upper/lower flammability or explosive limits**

|   |                   |
|---|-------------------|
| Upper:  | no data available |
| Lower:  | no data available |
| Flash point                                     | no data available |
| Auto-ignition temperature:                      | no data available |
| Decomposition temperature:                      | no data available |
| pH  | no data available |
| Viscosity (coefficient of viscosity)            | no data available |
| Dynamic viscosity                               | no data available |
| Solubilities                                    | No data available |
| n-Octanol/water partition coefficient:(log Pow) | no data available |
| Vapour pressure                                 | no data available |
| Specific Gravity / Relative density             | no data available |
| Vapour density                                  | no data available |
| Particle characteristics                        | no data available |

## Section 10: STABILITY AND REACTIVITY

### Stability

|                                  |   |
|----------------------------------|---|
| Reactivity                       | no data available                                       |
| Chemical stability               | May be altered by light.                                |
| Hazardous reactions              | None under normal processing                            |
| Conditions to avoid              | Extremes of temperature and direct sunlight             |
| Incompatible materials           | Strong oxidizing agents                                 |
| Hazardous decomposition products | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ) |

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

| Chemical Name      | Oral LD50          | Dermal LD50          | Inhalation LC50       |
|--------------------|--------------------|----------------------|-----------------------|
| Poly(acrylic acid) | 2500 mg/kg ( Rat ) | > 2000 mg/kg ( Rat ) | 1.71 mg/L ( Rat ) 4 h |
| 1,2-Dichloroethane | 670 mg/kg (Rat)    | 2800 mg/kg (Rabbit)  | 1000 ppm (Rat) 4 h    |

| Chemical Name      | Acute toxicity -oral- source information      | Acute toxicity -dermal- source information    | Acute toxicity -inhalation gas-source information |
|--------------------|---|---|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. | Based on the NITE GHS classification results.     |
| 1,2-Dichloroethane | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. | Based on the NITE GHS classification results.     |

| Chemical Name      | Acute toxicity -inhalation vapor- source information | Acute toxicity -inhalation dust-source information | Acute toxicity -inhalation mist-source information |
|--------------------|--|--|--|
| Poly(acrylic acid) | Based on the NITE GHS classification results.        | Based on the NITE GHS classification results.      | Based on the NITE GHS classification results.      |
| 1,2-Dichloroethane | Based on the NITE GHS classification results.        | Based on the NITE GHS classification results.      | Based on the NITE GHS classification results.      |

### Skin irritation/corrosion

| Chemical Name      | Skin corrosion/irritation source information  |
|--------------------|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results. |
| 1,2-Dichloroethane | Based on the NITE GHS classification results. |

### Serious eye damage/ irritation

| Chemical Name      | Serious eye damage/irritation source information |
|--------------------|--|
| Poly(acrylic acid) | Based on the NITE GHS classification results.    |
| 1,2-Dichloroethane | Based on the NITE GHS classification results.    |

### Respiratory or skin sensitization

| Chemical Name | Respiratory or Skin sensitization source information |
|---------------|--|
|---------------|--|

|                    |   |
|--------------------|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results. |
| 1,2-Dichloroethane | Based on the NITE GHS classification results. |

**Reproductive cell mutagenicity**

| Chemical Name      | germ cell mutagenicity source information     |
|--------------------|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results. |
| 1,2-Dichloroethane | Based on the NITE GHS classification results. |

**Carcinogenicity**

| Chemical Name      | Carcinogenicity source information            |
|--------------------|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results. |
| 1,2-Dichloroethane | Based on the NITE GHS classification results. |

| Chemical Name                   | NTP                       | IARC                 | ACGIH | JSOH (Japan) |
|---------------------------------|---------------------------|----------------------|-------|--------------|
| Poly(acrylic acid)<br>9003-01-4 |                           | Group 3              |       |              |
| 1,2-Dichloroethane<br>107-06-2  | Reasonably<br>Anticipated | Group 2A<br>Group 2B | -     | Group 2B     |

**Reproductive toxicity**

| Chemical Name      | Reproductive toxicity source information      |
|--------------------|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results. |
| 1,2-Dichloroethane | Based on the NITE GHS classification results. |

**STOT-single exposure**

| Chemical Name      | STOT -single exposure- source information     |
|--------------------|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results. |
| 1,2-Dichloroethane | Based on the NITE GHS classification results. |

**STOT-repeated exposure**

| Chemical Name      | STOT -repeated exposure- source information   |
|--------------------|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results. |
| 1,2-Dichloroethane | Based on the NITE GHS classification results. |

**Aspiration hazard**

| Chemical Name      | Aspiration Hazard source information          |
|--------------------|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results. |
| 1,2-Dichloroethane | Based on the NITE GHS classification results. |

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

| Chemical Name      | Algae/aquatic plants   | Fish  | Crustacea                               |
|--------------------|--|---|---|
| Poly(acrylic acid) | N/A  | LC50:Lepomis macrochirus<br>580 mg/L 96 h   | EC50:water flea<br>168 mg/L 96 h        |
| 1,2-Dichloroethane | EC50:Desmodosmus<br>subspicatus<br>166 mg/L 96 h<br>static<br>EC50:Pseudokirchneriella<br>subcapitata<br>433 mg/L 96 h | LC50:Pimephales promelas<br>110 - 123 mg/L 96 h<br>LC50:Lepomis macrochirus<br>230 - 710 mg/L 96 h<br>LC50:Oncorhynchus mykiss<br>225 mg/L 96 h | LC50 : Artemia salina<br>12.8 mg/L 48 h |

**Other data**

| Chemical Name      | Short-term (acute) hazardous to the aquatic environment source information | Long-term (chronic) hazardous to the aquatic environment source information |
|--------------------|--|---|
| Poly(acrylic acid) | Based on the NITE GHS classification results.                              | Based on the NITE GHS classification results.                               |
| 1,2-Dichloroethane | Based on the NITE GHS classification results.                              | Based on the NITE GHS classification results.                               |

|                                      |                          |
|--------------------------------------|--------------------------|
| <b>Persistence and degradability</b> | No information available |
| <b>Bioaccumulative potential</b>     | No information available |
| <b>Mobility in soil</b>              | No information available |

Hazard to the ozone layer No information available

### Section 13: DISPOSAL CONSIDERATIONS

#### Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### Section 14: TRANSPORT INFORMATION

|  |                          |
|--|--------------------------|
| <b>ADR/RID</b>   | Not regulated            |
| UN number  | -                        |
| Proper shipping name:  | -                        |
| UN classification  | -                        |
| Subsidiary hazard class  | -                        |
| Packing group  | -                        |
| Marine pollutant   | Not applicable           |
| <b>IMDG</b>  | Not regulated            |
| UN number  | -                        |
| Proper shipping name:  | -                        |
| UN classification  | -                        |
| Subsidiary hazard class  | -                        |
| Packing group  | -                        |
| Marine pollutant (Sea)   | Not applicable           |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | No information available |
| <b>IATA</b>  | Not regulated            |
| UN number  | -                        |
| Proper shipping name:  | -                        |
| UN classification  | -                        |
| Subsidiary hazard class  | -                        |
| Packing group  | -                        |
| Environmentally Hazardous Substance                                      | Not applicable           |

### Section 15: REGULATORY INFORMATION

#### International Inventories

|               |        |
|---------------|--------|
| EINECS/ELINCS | Listed |
| TSCA          | Listed |

#### Japanese regulations

|   |  |
|---|--|
| Fire Service Act  | Not applicable   |
| Poisonous and Deleterious Substances Control Law                                      | Not applicable   |
| Industrial Safety and Health Act  | Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.240 |
| Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc | Priority Assessment Chemical Substances (Law Article 2, Para.5)                            |
| Regulations for the carriage and storage of dangerous goods in ship                   | Not applicable   |
| Civil Aeronautics Law   | Not applicable   |
| Pollutant Release and Transfer Register Law (~2023.3.31)                              | Not applicable   |

|   |   |
|---|---|
| <b>Pollutant Release and Transfer Register Law</b><br>(2023/4/1~) | <u>Class 1</u>  |
| <b>Class 1 - No.</b>  | <u>565</u>  |
| <b>Water Pollution Control Act</b>                                | Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinance Designating Wastewater Standards Art.1) |
| <b>Export Trade Control Order</b>                                 | Appendix 2 Export Approval Item   |
| <b>Air Pollution Control Law</b>                                  | Priority Chemical Substances  |
| <b>Soil Contamination Control Law</b>                             | Designated Hazardous Substances   |

| Chemical Name                       | Poisonous and Deleterious Substances Control Law | Industrial Safety and Health Act Substances (Law Art.57-2) (~2024.3.31) | Pollutant Release and Transfer Register Law (~2023.3.31) |
|-------------------------------------|--|---|--|
| 1,2-Dichloroethane<br>107-06-2 (<1) | -  | Applicable  | -  |

## Section 16: OTHER INFORMATION

### Key literature references and sources for data etc.

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances  
 Japan Industrial Safety and Health Association GHS Model SDS  
 Dictionary of Synthetic Organic Chemistry, SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

### Disclaimer

This SDS is according to JIS Z 7253: 2019. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GHS Classification is according to JIS Z7252(2019). \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**