# **SAFETY DATA SHEET**



Date of issue 2/6/2024 (month/day/year)

Version 10

# Section 1. Chemical product and company identification

A. Product name : SIGMACOVER 456 KRA BASE H-349502-69

Product code : 00346242

B. Relevant identified uses of the substance or mixture and uses advised against

**Product use** : Professional applications, Used by spraying.

Use of the substance/

mixture

: Coating.

**Uses advised against**: Product is not intended, labelled or packaged for consumer use.

C. Supplier's or Importer's

information

**Email Address** 

: PPG SSC (680-090)

19, Yeocheon-ro 217beon-gil, Nam-gu,

Ulsan, Korea

Tel: +82-52-210-8222 Korea.MSDS@PPG.COM

**Emergency telephone** 

number:

# Section 2. Hazards identification

A. Hazard classification : FLAMMABLE LIQUIDS - Category 3

SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

AQUATIC HAZARD (LONG-TERM) - Category 3

This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements

Symbol :







Signal word : Warning

Korea (GHS) Page: 1/14

Product name SIGMACOVER 456 KRA BASE H-349502-69

#### Section 2. Hazards identification

**Hazard statements** 

: H226 - Flammable liquid and vapor.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

H351 - Suspected of causing cancer.

H373 - May cause damage to organs through prolonged or repeated exposure.

(central nervous system (CNS), kidneys, liver)

H412 - Harmful to aquatic life with long lasting effects.

#### **Precautionary statements**

**Prevention** 

: P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves, protective clothing and eye or face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P241 - Use explosion-proof electrical, ventilating or lighting equipment.

P242 - Use non-sparking tools.

P243 - Take action to prevent static discharges.

P273 - Avoid release to the environment.

P260 - Do not breathe vapor.

P264 - Wash thoroughly after handling.

Response : P308 + P313 - IF exposed or concerned: Get medical advice or attention.

P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.

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

P403 + P235 - Keep cool.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

C. Other hazards which do

not result in classification

: Prolonged or repeated contact may dry skin and cause irritation.

### Section 3. Composition/information on ingredients

#### CAS number/other identifiers

**CAS number** : Not applicable.

| Chemical name  | Common name                    | Identifiers     | %           |
|--|--------------------------------|-----------------|-------------|
| ▼alc , not containing asbestiform fibres   | Talc, non-asbestos form        | CAS: 14807-96-6 | 40 -<br><50 |
| titanium dioxide   | TITANIUM DIOXIDE               | CAS: 13463-67-7 | 10 -<20     |
| Epoxy Resin (700 <mw<=1100)< td=""><td>EPOXY RESIN (AVERAGE</td><td>CAS: 25036-25-3</td><td>10 -&lt;20</td></mw<=1100)<> | EPOXY RESIN (AVERAGE           | CAS: 25036-25-3 | 10 -<20     |
|  | MOLECULAR WEIGHT >700 - <1100) |                 |             |
| Epoxy Resin  | EPOXY RESIN                    | CAS: SUB110652  | 5 - <10     |
| Xylene   | XYLENES                        | CAS: 1330-20-7  | 5 - <10     |
| Solvent naphtha (petroleum), light   | SOLVENT NAPHTHA (PETROLEUM),   | CAS: 64742-95-6 | 1 - <5      |
| aromatic   | LIGHT AROMATIC                 |                 |             |
| 1,2,4-trimethylbenzene   | 1,2,4-TRIMETHYL BENZENE        | CAS: 95-63-6    | 1 - <5      |

Korea (GHS) Page: 2/14

Product code 00346242 Date of issue 2/6/2024 (month/day/year) **Version 10** Product name SIGMACOVER 456 KRA BASE H-349502-69 Section 3. Composition/information on ingredients Epoxy resin (MW ≤ 700) **EPOXY RESIN ( AVERAGE** CAS: 25068-38-6 1 - < 5 MOLECULAR WT < 700) benzvl alcohol BENZYL ALCOHOL CAS: 100-51-6 1 - < 5 **ETHYLBENZENE** ethylbenzene CAS: 100-41-4 1 - < 5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First aid measures

| A  | Eve contact | . Domava a  |
|----|-------------|-------------|
| Α. | Eve contact | : Remove co |

- : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- B. Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- C. Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- D. Ingestion : If swallowed, seek medical advice immediately and show this container or label.
   Keep person warm and at rest. Do NOT induce vomiting.
- E. Notes to physician
   : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

### Section 5. Fire-fighting measures

#### A. Extinguishing media

Suitable extinguishing media

: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

Unsuitable extinguishing media

: Do not use water jet.

B. Specific hazards arising from the chemical

: Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Korea (GHS) Page: 3/14

Product name SIGMACOVER 456 KRA BASE H-349502-69

### Section 5. Fire-fighting measures

**Hazardous thermal** decomposition products : Decomposition products may include the following materials: carbon oxides

halogenated compounds metal oxide/oxides

C. Special equipment for fire-fighting

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure

Fire-fighting procedures : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

### Section 6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**B. Environmental** precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

#### C. Methods and materials for containment and cleaning up

**Small spill** 

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

A. Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when

> Korea (GHS) Page: 4/14

### Section 7. Handling and storage

not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

B. Conditions for safe storage, including any incompatibilities

: Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

#### A. Occupational exposure limits

| Ingredient name                          | Exposure limits                                     |
|--|---|
| √alc , not containing asbestiform fibres | Ministry of Employment and Labor                    |
|  | (Republic of Korea, 1/2020).                        |
|  | TWA: 2 mg/m³ 8 hours. Form: fibers                  |
| titanium dioxide                         | Ministry of Employment and Labor                    |
|  | (Republic of Korea, 1/2020).                        |
|  | TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total dust |
|  | with less than 1% of free SiO2                      |
| Xylene                                   | Ministry of Employment and Labor                    |
|  | (Republic of Korea, 1/2020). [Xylene (all           |
|  | isomers)]   |
|  | STEL: 150 ppm 15 minutes.                           |
|  | TWA: 100 ppm 8 hours.                               |
| 1,2,4-trimethylbenzene                   | Ministry of Employment and Labor                    |
|  | (Republic of Korea, 1/2020). [Trimethyl             |
|  | benzene (mixed isomers)]                            |
|  | TWA: 25 ppm 8 hours.                                |
| ethylbenzene                             | Ministry of Employment and Labor                    |
|  | (Republic of Korea, 1/2020).                        |
|  | STEL: 125 ppm 15 minutes.                           |
|  | TWA: 100 ppm 8 hours.                               |

Recommended monitoring procedures

- : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- B. Appropriate engineering controls
- Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Korea (GHS) Page: 5/14

Product name SIGMACOVER 456 KRA BASE H-349502-69

### Section 8. Exposure controls/personal protection

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Version 10

#### C. Personal protective equipment

**Respiratory protection** 

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Eye protection Hand protection

: Chemical splash goggles.

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves

: butyl rubber

**Body protection** 

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Hygiene measures** 

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

# Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

A. Appearance

Physical state : Liquid.

Color : Not available.

B. Odor : Aromatic.

C. Odor threshold : Not available.

D. pH : Mot applicable.

E. Melting/freezing point : Not available.

F. Boiling point/boiling : >37.78°C (>100°F)

range

G. Flash point : Closed cup: 34°C (93.2°F)

H. Evaporation rate : Not available.I. Flammability (solid, gas) : Not available.

Korea (GHS) Page: 6/14

Product name SIGMACOVER 456 KRA BASE H-349502-69

### Section 9. Physical and chemical properties

J. Lower and upper explosive (flammable) limits

: Greatest known range: Lower: 1.3% Upper: 13% (benzyl alcohol)

K. Vapor pressure

|                 | Vapor Pressure at 20°C |     |        | Vapor pressure at 50°C |     |        |
|-----------------|------------------------|-----|--------|------------------------|-----|--------|
| Ingredient name | mm Hg                  | kPa | Method | mm<br>Hg               | kPa | Method |
| ethylbenzene    | 9.30076                | 1.2 |        |                        |     |        |

Media Result L. Solubility(ies)

> cold water Not soluble

Solubility in water Not available. Vapor density Not available.

**Relative density** 1.56

Partition coefficient: n-

octanol/water

: Not applicable.

**Auto-ignition** 

temperature

| Ingredient name                             | °C         | °F         | Method |
|---|------------|------------|--------|
| Solvent naphtha (petroleum), light aromatic | 280 to 470 | 536 to 878 |        |

**Decomposition** 

temperature

: Not available.

: Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt) **Viscosity** 

: Not available. Flow time (ISO 2431) : Not applicable. **Molecular weight** 

# Section 10. Stability and reactivity

A. Chemical stability : The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

B. Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

C. Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:

oxidizing agents, strong alkalis, strong acids.

D. Hazardous : Depending on conditions, decomposition products may include the following materials: carbon oxides halogenated compounds metal oxide/oxides decomposition products

> Korea (GHS) Page: 7/14

Product name SIGMACOVER 456 KRA BASE H-349502-69

## **Section 11. Toxicological information**

A. Information on the likely routes of exposure

: Not available.

#### Potential acute health effects

**Inhalation** : May cause respiratory irritation.

**Ingestion** : No known significant effects or critical hazards.

**Skin contact**: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

**Eye contact** : Causes serious eye irritation.

#### Over-exposure signs/symptoms

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

**Ingestion** : No specific data.

**Skin contact**: Adverse symptoms may include the following:

irritation redness dryness cracking

**Eye contact** : Adverse symptoms may include the following:

pain or irritation

watering redness

#### **B.** Health hazards

#### **Acute toxicity**

| Product/ingredient name   | Result                          | Species | Dose                    | Exposure |
|---|---------------------------------|---------|-------------------------|----------|
| Manium dioxide  | LC50 Inhalation Dusts and mists | Rat     | >6.82 mg/l              | 4 hours  |
|   | LD50 Dermal                     | Rabbit  | >5000 mg/kg             | -        |
|   | LD50 Oral                       | Rat     | >5000 mg/kg             | -        |
| Epoxy Resin (700 <mw<=1100)< td=""><td>LD50 Dermal</td><td>Rat</td><td>&gt;2000 mg/kg</td><td>-</td></mw<=1100)<> | LD50 Dermal                     | Rat     | >2000 mg/kg             | -        |
|   | LD50 Oral                       | Rat     | >2000 mg/kg             | -        |
| Xylene  | LD50 Dermal                     | Rabbit  | 1.7 g/kg                | -        |
|   | LD50 Oral                       | Rat     | 4.3 g/kg                | -        |
| Solvent naphtha (petroleum), light aromatic   | LD50 Dermal                     | Rabbit  | 3.48 g/kg               | -        |
|   | LD50 Oral                       | Rat     | 8400 mg/kg              | -        |
| 1,2,4-trimethylbenzene  | LC50 Inhalation Vapor           | Rat     | 18000 mg/m <sup>3</sup> | 4 hours  |
| •   | LD50 Oral                       | Rat     | 5 g/kg                  | -        |
| Epoxy resin (MW ≤ 700)  | LD50 Dermal                     | Rabbit  | >2 g/kg                 | -        |
|   | LD50 Oral                       | Rat     | >2 g/kg                 | -        |
| benzyl alcohol  | LC50 Inhalation Dusts and mists | Rat     | >4178 mg/m³             | 4 hours  |
|   | LD50 Dermal                     | Rabbit  | 2000 mg/kg              | -        |
|   | LD50 Oral                       | Rat     | 1.23 g/kg               | -        |
| ethylbenzene  | LC50 Inhalation Vapor           | Rat     | 17.8 mg/l               | 4 hours  |
|   | LD50 Dermal                     | Rabbit  | 17.8 g/kg               | -        |
|   | LD50 Oral                       | Rat     | 3.5 g/kg                | -        |

**Conclusion/Summary**: There are no data available on the mixture itself.

#### **Irritation/Corrosion**

Korea (GHS) Page: 8/14

Product name SIGMACOVER 456 KRA BASE H-349502-69

### **Section 11. Toxicological information**

| Product/ingredient name | Result                   | Species | Score | Exposure     | Observation |
|-------------------------|--------------------------|---------|-------|--------------|-------------|
| ▼ylene                  | Skin - Moderate irritant | Rabbit  | -     | 24 hours 500 | -           |
|                         |                          |         |       | mg           |             |
| Epoxy resin (MW ≤ 700)  | Eyes - Mild irritant     | Rabbit  | -     | -            | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | -            | -           |

**Conclusion/Summary** 

Skin : There are no data available on the mixture itself.
 Eyes : There are no data available on the mixture itself.
 Respiratory : There are no data available on the mixture itself.

#### **Sensitization**

| Product/ingredient name | Route of exposure | Species | Result      |
|-------------------------|-------------------|---------|-------------|
| Epoxy resin (MW ≤ 700)  | skin              | Mouse   | Sensitizing |

**Conclusion/Summary** 

Skin : There are no data available on the mixture itself.Respiratory : There are no data available on the mixture itself.

**Mutagenicity** 

**Conclusion/Summary**: There are no data available on the mixture itself.

**Carcinogenicity** 

**Conclusion/Summary**: There are no data available on the mixture itself.

**Reproductive toxicity** 

**Conclusion/Summary**: There are no data available on the mixture itself.

**Teratogenicity** 

**Conclusion/Summary**: There are no data available on the mixture itself.

#### Specific target organ toxicity (single exposure)

| Name  | Classification | Route of exposure | Target organs                |
|---|----------------|-------------------|------------------------------|
| ▼alc , not containing asbestiform fibres    | Category 3     | -                 | Respiratory tract irritation |
| Xylene                                      | Category 3     | -                 | Narcotic effects             |
| Solvent naphtha (petroleum), light aromatic | Category 3     | -                 | Narcotic effects             |
| 1,2,4-trimethylbenzene                      | Category 3     | -                 | Respiratory tract irritation |

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

| Name   | Classification | Route of exposure | Target organs                                      |
|--------|----------------|-------------------|--|
| Xylene | Category 1     |                   | central nervous<br>system (CNS),<br>kidneys, liver |

Korea (GHS) Page: 9/14

| Product code | 00346242                      | Date of issue | 2/6/2024 (month/day/year) | Version 10 |
|--------------|-------------------------------|---------------|---------------------------|------------|
| Product name | SIGMACOVER 456 KRA BASE H-349 | 502-69        |                           |            |

# **Section 11. Toxicological information**

#### **Aspiration hazard**

| Name           | Result   |
|----------------|--|
| benzyl alcohol | ASPIRATION HAZARD - Category 1<br>ASPIRATION HAZARD - Category 2<br>ASPIRATION HAZARD - Category 1 |

#### Potential chronic health effects

**General** : May cause damage to organs through prolonged or repeated exposure. Prolonged or

repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of

exposure.

Mutagenicity: No known significant effects or critical hazards.Reproductive toxicity: No known significant effects or critical hazards.

#### **Additional information**

Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

| Chemical name   | Identifiers       | GHS Classification  |
|---|-------------------|---|
| ralc , not containing asbestiform fibres  | CAS: 14807-96-6   | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - |
|   |                   | Category 3  |
| titanium dioxide  | CAS: 13463-67-7   | CARCINOGENICITY - Category 2  |
| Epoxy Resin (700 <mw<=1100)< td=""><td>CAS: 25036-25-3</td><td>SKIN IRRITATION - Category 2</td></mw<=1100)<> | CAS: 25036-25-3   | SKIN IRRITATION - Category 2  |
| Zpony result (100 mm 1100)  | 0, 10. 20000 20 0 | EYE IRRITATION - Category 2A  |
|   |                   | SKIN SENSITIZATION - Category 1B  |
| Epoxy Resin   | CAS: SUB110652    | SKIN IRRITATION - Category 2  |
|   |                   | EYE IRRITATION - Category 2A  |
|   |                   | SKIN SENSITIZATION - Category 1B  |
| Xylene  | CAS: 1330-20-7    | FLAMMABLE LIQUIDS - Category 3  |
|   |                   | ACUTE TOXICITY (dermal) - Category 4  |
|   |                   | ACUTE TOXICITY (inhalation) - Category 4  |
|   |                   | SKIN IRRITATION - Category 2  |
|   |                   | EYE IRRITATION - Category 2A  |
|   |                   | SPECIFIC TARGET ORGAN TOXICITY (SINGLE  |
|   |                   | EXPOSURE) (Narcotic effects) - Category 3   |
|   |                   | SPECIFIC TARGET ORGAN TOXICITY  |
| Calvert nonlithe (notroleum) light  | CAC: 64740 0F 6   | (REPEATED EXPOSURE) - Category 1  |
| Solvent naphtha (petroleum), light aromatic   | CAS: 64742-95-6   | FLAMMABLE LIQUIDS - Category 3  |
|   |                   | SKIN IRRITATION - Category 2  |
|   |                   | SPECIFIC TARGET ORGAN TOXICITY (SINGLE  |
|   |                   | EXPOSURE) (Narcotic effects) - Category 3   |
|   |                   | ASPIRATION HAZARD - Category 1  |
|   |                   | AQUATIC HAZARD (LONG-TERM) - Category 2   |
| 1,2,4-trimethylbenzene  | CAS: 95-63-6      | FLAMMABLE LIQUIDS - Category 3  |
|   |                   | ACUTE TOXICITY (inhalation) - Category 4  |
|   |                   | SKIN IRRITATION - Category 2  |

Korea (GHS) Page: 10/14

| Product code        | 00346242                      | Date of issue | 2/6/2024 (month/day/year) | Version 10 |
|---------------------|-------------------------------|---------------|---------------------------|------------|
| <b>Product name</b> | SIGMACOVER 456 KRA BASE H-349 | 502-69        |                           |            |

# Section 11. Toxicological information

| Į.                     | 1               |   |
|------------------------|-----------------|---|
|                        |                 | EYE IRRITATION - Category 2A  SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - |
|                        |                 | Category 3  |
|                        |                 | AQUATIC HAZARD (LONG-TERM) - Category 2   |
| Epoxy resin (MW ≤ 700) | CAS: 25068-38-6 | SKIN IRRITATION - Category 2  |
|                        | 0,10.2000000    | EYE IRRITATION - Category 2A  |
|                        |                 | SKIN SENSITIZATION - Category 1B  |
|                        |                 | AQUATIC HAZARD (LONG-TERM) - Category 2   |
| benzyl alcohol         | CAS: 100-51-6   | ACUTE TOXICITY (oral) - Category 4  |
|                        |                 | ACUTE TOXICITY (dermal) - Category 4  |
|                        |                 | ACUTE TOXICITY (inhalation) - Category 4  |
|                        |                 | EYE IRRITATION - Category 2A  |
|                        |                 | ASPIRATION HAZARD - Category 2  |
| ethylbenzene           | CAS: 100-41-4   | FLAMMABLE LIQUIDS - Category 2  |
|                        |                 | ACUTE TOXICITY (inhalation) - Category 4  |
|                        |                 | CARCINOGENICITY - Category 2  |
|                        |                 | ASPIRATION HAZARD - Category 1  |
|                        |                 | AQUATIC HAZARD (LONG-TERM) - Category 3   |

# Section 12. Ecological information

#### A. **Ecotoxicity**

| Product/ingredient name     | Result                           | Species                        | Exposure |
|-----------------------------|----------------------------------|--------------------------------|----------|
| titanium dioxide            | Acute LC50 >100 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> | 48 hours |
| Solvent naphtha             | Acute LC50 8.2 mg/l              | Fish                           | 96 hours |
| (petroleum), light aromatic |                                  |                                |          |
| Epoxy resin (MW ≤ 700)      | Acute LC50 1.8 mg/l              | Daphnia                        | 48 hours |
|                             | Chronic NOEC 0.3 mg/l            | Daphnia                        | 21 days  |
| ethylbenzene                | Acute EC50 1.8 mg/l Fresh water  | Daphnia                        | 48 hours |
|                             | Chronic NOEC 1 mg/l Fresh water  | Daphnia - Ceriodaphnia dubia   | -        |

### B. Persistence and degradability

| Product/ingredient name             | Test      | Result                   | Dose | Inoculum |
|-------------------------------------|-----------|--------------------------|------|----------|
| Epoxy resin (MW ≤ 700) ethylbenzene | OECD 301F | 5 % - 28 days            | -    | -        |
|                                     | -         | 79 % - Readily - 10 days | -    | -        |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| <b>⋉</b> ylene          | -                 | -          | Readily          |
| Epoxy resin (MW ≤ 700)  | -                 | -          | Not readily      |
| benzyl alcohol          | -                 | -          | Readily          |
| ethylbenzene            | -                 | -          | Readily          |

#### C. Bioaccumulative potential

| Product/ingredient name | LogPow | BCF         | Potential |
|-------------------------|--------|-------------|-----------|
| Xylene                  | 3.12   | 7.4 to 18.5 | Low       |
| 1,2,4-trimethylbenzene  | 3.63   | 120.23      | Low       |
| Epoxy resin (MW ≤ 700)  | 3      | 31          | Low       |
| benzyl alcohol          | 0.87   | -           | Low       |
| ethylbenzene            | 3.6    | 79.43       | Low       |

Korea (GHS) Page: 11/14

Product name SIGMACOVER 456 KRA BASE H-349502-69

### **Section 12. Ecological information**

D. Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

**E.** Other adverse effects : No known significant effects or critical hazards.

### Section 13. Disposal considerations

A. Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**B.** Disposal precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### **Section 14. Transport information**

|                                | UN              | IMDG            | IATA            |
|--------------------------------|-----------------|-----------------|-----------------|
| A. UN number                   | UN1263          | UN1263          | UN1263          |
| B. UN proper shipping name     | PAINT           | PAINT           | PAINT           |
| C. Transport hazard class(es)  | 3               | 3               | 3               |
| D. Packing group               | III             | III             | III             |
| Environmental hazards          | No.             | No.             | No.             |
| E. Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. |

#### **Additional information**

UN : None identified.IMDG : None identified.IATA : None identified.

F. Special precaution which a user to be aware of or needs to comply with in connection with transport or transportation

Korea (GHS) Page: 12/14

Product name SIGMACOVER 456 KRA BASE H-349502-69

### **Section 14. Transport information**

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not applicable.

to IMO instruments

### **Section 15. Regulatory information**

#### A. Regulation according to ISHA

**ISHA** article 117 (Harmful substances prohibited from manufacture)

: None of the components are listed.

**ISHA** article 118 (Harmful substances requiring permission) : None of the components are listed.

**Article 2 of Youth Protection** Act on Substances Hazardous to Youth

: It is not allowed to sell to persons under the age of 19.

#### **Exposure Limits of Chemical Substances and Physical Factors**

The following components have an OEL: Talc , not containing asbestiform fibres

titanium dioxide

**Xvlene** 

1,2,4-trimethylbenzene

ethylbenzene

ISHA Enforcement Regs

**Annex 19 (Exposure** standards established for harmful factors)

: None of the components are listed.

**ISHA Enforcement Regs Annex 21 (Harmful** 

factors subject to Work

**Environment Measurement)**  The following components are listed: talc / soapstone, titanium dioxide, xylene, ethyl

benzene

**ISHA Enforcement Regs** 

**Annex 22 (Harmful Factors Subject to Special Health Check-**

up)

control)

**Standard of Industrial Safety and Health Annex 12 (Hazardous** substances subject to : The following components are listed: Xylene, Ethyl benzene

: The following components are listed: titanium dioxide, xylene, ethyl benzene

#### B. Regulation according to Chemicals Control Act

Article 11 (TRI) : The following components are listed: Xylene including o-,m-,p- isomer, 4,4'-

(1-Methylethylidene) bisphenol polymer with (chloromethyl)oxirane, Ethylbenzene

Article 18 Prohibited (K-

Reach Article 27)

: None of the components are listed.

Korea (GHS) Page: 13/14

Product name SIGMACOVER 456 KRA BASE H-349502-69

### Section 15. Regulatory information

**Article 19 Subject to** authorization (K-Reach : None of the components are listed.

Article 25)

**Article 20 Restricted (K-**

Reach Article 27)

: None of the components are listed.

**Article 20 Toxic** 

**Chemicals (K-Reach** 

Article 20)

**Korea inventory Article 39 (Accident Precaution Chemicals)**  : All components are listed or exempted. : None of the components are listed.

C. <u>Dangerous Materials</u> **Safety Management Act**  : Class: Class 4 - Flammable Liquid

Item: 4. Class 2 petroleums - Water-insoluble liquid

Threshold: 1000 L Danger category: III

Signal word: Contact with sources of ignition prohibited

: Not applicable

Dispose of contents and container in accordance with all local, regional, national D. Wastes regulation and international regulations.

E. Regulation according to other foreign laws

Safety, health and environmental regulations specific for the product

: No known specific national and/or regional regulations applicable to this product (including its ingredients).

### Section 16. Other information

A. References : Korean Ministry of Environment; Chemical Control Act

Korean Ministry of Labor; Industrial Safety and Health Act

**NIER Notice** 

Registry of Toxic Effects of Chemical Substances (RTECS)

U.S. Environmental Protection Agency, AQUIRE (Aquatic toxicity Information

Retrieval) ECOTOX Database System.

B. Date of issue/Date of

revision

: 2/6/2024

C. Version : 10 **Prepared by** : EHS

D. Other

✓ Indicates information that has changed from previously issued version.

#### **Disclaimer**

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

Korea (GHS) Page: 14/14