# **SAFETY DATA SHEET**

Date of issue : 31 May 2022 Version : 6.01 PROTEC

Section 1. Identification

| Product code   | : AH-6450/1L  |
|--|---|
| Product name   | : 6450 PROTEC GLASS ADDITIVE HARDENER   |
| Product type   | : Liquid.   |
| Recommended use and res                                    | trictions   |
| Use of the substance/<br>mixture                           | : Coating.  |
| Uses advised against                                       | : Not applicable.   |
| Supplier's details   | : PPG INDUSTRIES NEW ZEALAND LTD<br>5 MONAHAN ROAD, MT WELLINGTON,<br>AUCKLAND<br>www.ppgnz.co.nz<br>Telephone Numbers:<br>09 573 1620, 0800 659378 |
|  | 021 940 920 (24 Hours)  |
| Emergency telephone<br>number (with hours of<br>operation) | : New Zealand 0800 000 096 (24 hours) / Australia 1800 883 254 (24 hours)<br>For international shipping emergencies: 1-412-391-1618                 |
| e-mail address of person<br>responsible for this SDS       | : ehsnz@ppg.com   |

## Section 2. Hazards identification

| HSNO Classification               | : FLAMMABLE LIQUIDS - Category 3<br>ACUTE TOXICITY (inhalation) - Category 4<br>SKIN IRRITATION - Category 2<br>EYE IRRITATION - Category 2<br>RESPIRATORY SENSITISATION - Category 1   |
|-----------------------------------|---|
|                                   | SKIN SENSITISATION - Category 1<br>CARCINOGENICITY - Category 2<br>REPRODUCTIVE TOXICITY - Category 2<br>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2<br>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 |
| Symbol                            |   |
| GHS label elements<br>Signal word | : Danger  |

### Section 2. Hazards identification

| Hazard statements                                   | : Flammable liquid and vapour.  |
|---|---|
|   | Causes skin irritation.   |
|   | May cause an allergic skin reaction.  |
|   | Causes serious eye irritation.<br>Harmful if inhaled.   |
|   | May cause allergy or asthma symptoms or breathing difficulties if inhaled.  |
|   | Suspected of causing cancer.  |
|   | Suspected of damaging fertility or the unborn child.  |
|   | May cause damage to organs.   |
|   | May cause damage to organs through prolonged or repeated exposure.  |
|   | Prolonged or repeated contact may dry skin and cause irritation.  |
| Precautionary statements                            |   |
| Prevention  | : Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapour. Wash thoroughly after handling.  |
| Response  | : IF exposed or concerned: Call a POISON CENTER or doctor. IF INHALED:<br>Remove person to fresh air and keep comfortable for breathing. Call a POISON<br>CENTER or doctor if you feel unwell. If experiencing respiratory symptoms: Call a<br>POISON CENTER or doctor. Take off contaminated clothing and wash it before<br>reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get<br>medical advice or attention. IF IN EYES: Rinse cautiously with water for several<br>minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye<br>irritation persists: Get medical advice or attention. |
| Storage   | : Not applicable.   |
| Disposal  | : Not applicable.   |
| Other hazards which do not result in classification | : Prolonged or repeated contact may dry skin and cause irritation.  |

This material is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and has been classified according to the Hazardous Substances (Classifications) Notice 2017. This material is classified as DANGEROUS GOODS according to criteria in New Zealand Land Transport Rule:

Dangerous Goods 2005.

### Section 3. Composition/information on ingredients

| Substance/mixture            | : | Mixture |  |
|------------------------------|---|---------|--|
| CAS number/other identifiers |   |         |  |

**Product code** 

: AH-6450/1L

| Hazardous ingredients                        | %        | CAS number |
|--|----------|------------|
| ✓examethylene diisocyanate, oligomers        | 30 - 60  | 28182-81-2 |
| n-butyl acetate                              | 10 - <30 | 123-86-4   |
| xylene                                       | 10 - <30 | 1330-20-7  |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 1 - <10  | 2530-83-8  |
| ethylbenzene                                 | 1 - <10  | 100-41-4   |
| Solvent naphtha (petroleum), light aromatic  | 1 - <10  | 64742-95-6 |

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 or have an OEL and hence require reporting in this section.

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

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## Section 4. First aid measures

| <b>Description</b> | of | necessar | y first | aid | measures |  |
|--------------------|----|----------|---------|-----|----------|--|
|                    |    |          | 1       |     |          |  |

| Description of necessary firs | <u>a measures</u>  |    |
|-------------------------------|--|----|
| Eye contact                   | Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.                            |    |
| 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. |    |
| Skin contact                  | Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.   |    |
| Ingestion                     | If swallowed, seek medical advice immediately and show the container or label.<br>Keep person warm and at rest. Do NOT induce vomiting.  |    |
| Most important symptoms/ef    | <u>is, acute and delayed</u>   |    |
| Potential acute health effec  |  |    |
| Eye contact                   | Causes serious eye irritation.   |    |
| Inhalation                    | Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties inhaled.  | if |
| Skin contact                  | May cause damage to organs following a single exposure in contact with skin.<br>Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.                            |    |
| Ingestion                     | May cause damage to organs following a single exposure if swallowed.   |    |
| Over-exposure signs/sympt     | <u>S</u>   |    |
| Eyes                          | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness   |    |
| Inhalation                    | Adverse symptoms may include the following:<br>wheezing and breathing difficulties<br>asthma<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations                   |    |
| Skin                          | Adverse symptoms may include the following:<br>irritation<br>redness<br>dryness<br>cracking<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations                    |    |
| Ingestion                     | Adverse symptoms may include the following:<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations  |    |
| Indication of immediate med   | attention and special treatment needed, if necessary   |    |
| Specific treatments           | Not available.   |    |
| Notes to physician            | In case of inhalation of decomposition products in a fire, symptoms may be delayed<br>The exposed person may need to be kept under medical surveillance for 48 hours.                          |    |

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## Section 4. First aid measures

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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.
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See toxicological information (Section 11)

## Section 5. Firefighting measures

| Extinguishing media                            |  |    |
|--|--|----|
| Suitable                                       | Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.   |    |
| Not suitable                                   | Do not use water jet.  |    |
| Specific hazards arising from the chemical     | Flammable liquid and vapour. Runoff to sewer may create fire or explosion<br>In a fire or if heated, a pressure increase will occur and the container may b<br>the risk of a subsequent explosion.   |    |
| Hazardous thermal decomposition products       | Decomposition products may include the following materials:<br>carbon oxides<br>nitrogen oxides<br>metal oxide/oxides<br>Cyanate and isocyanate.<br>hydrogen cyanide   |    |
| Special precautions for fire-<br>fighters      | Promptly isolate the scene by removing all persons from the vicinity of the ir there is a fire. No action shall be taken involving any personal risk or withou suitable training. Move containers from fire area if this can be done without Use water spray to keep fire-exposed containers cool. | ut |
| Special protective equipment for fire-fighters | Fire-fighters should wear appropriate protective equipment and self-containe<br>breathing apparatus (SCBA) with a full face-piece operated in positive press<br>mode.  |    |

### Section 6. Accidental release measures

|   |            | New Zealand Page: 4/14   |
|---|------------|--|
| Large spill   | :          | contractor.<br>Stop leak if without risk. Move containers from spill area. Use spark-proof tools and<br>explosion-proof equipment. Approach the release from upwind. Prevent entry into<br>sewers, water courses, basements or confined areas. Wash spillages into an<br>effluent treatment plant or proceed as follows. Contain and collect spillage with non-<br>combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth<br>and place in container for disposal according to local regulations (see Section 13).<br>Dispose of via a licensed waste disposal contractor. Contaminated absorbent<br>material may pose the same hazard as the spilt product. Note: see Section 1 for<br>emergency contact information and Section 13 for waste disposal. |
| 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.<br>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.  |
| Methods and material for co   | <u>nta</u> | inment and cleaning up   |
| Environmental precautions   |            | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains<br>and sewers. Inform the relevant authorities if the product has caused environmental<br>pollution (sewers, waterways, soil or air).  |
| Personal precautions,<br>protective equipment and<br>emergency procedures | :          | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".  |
|   |            |  |

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## Section 6. Accidental release measures

| Special provisions | : Contain and collect spillage with non-combustible, absorbent material e.g. sand,<br>earth, vermiculite or diatomaceous earth and place in container for disposal<br>according to local regulations (see Section 13). Place in a suitable container. The<br>contaminated area should be cleaned immediately with a suitable decontaminant.<br>One possible (flammable) decontaminant comprises (by volume): water (45 parts),<br>ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia<br>solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and<br>water (95 parts). Add the same decontaminant to the remnants and let stand for<br>several days until no further reaction in an unsealed container. Once this stage is<br>reached, close container and dispose of according to local regulations (see section<br>13). Do not allow to enter drains or watercourses. If the product contaminates lakes,<br>rivers, or sewers, inform the appropriate authorities in accordance with local<br>regulations. |
|--------------------|---|
|--------------------|---|

## Section 7. Handling and storage

| Precautions for safe :<br>handling                                   | Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. 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 vapour or mist. Do not ingest. 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 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. |
|--|---|
| Conditions for safe storage, :<br>including any<br>incompatibilities | Do not store above the following temperature: $50^{\circ}C$ ( $122^{\circ}F$ ). 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 oxidising 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Precautions should be taken to minimise exposure to atmospheric humidity or water. $CO_2$ will be formed, which, in closed containers, could result in pressurisation.   |

## Section 8. Exposure controls/personal protection

**Control parameters** 

## Section 8. Exposure controls/personal protection

| Ingredient name                   |      |  | Exposure limits  |  |
|-----------------------------------|------|--|--|--|
| Fexamethylene diisocyanate        | , ol | igomers  | NZ HSWA 2015 (New Zealand, 11/2020).<br>Skin sensitiser. Inhalation sensitiser.<br>WES-TWA: 0.02 mg/m <sup>3</sup> , (measured as -<br>NCO) 8 hours.<br>WES-STEL: 0.07 mg/m <sup>3</sup> , (measured as -<br>NCO) 15 minutes.                            |  |
| n-butyl acetate                   |      |  | NZ HSWA 2015 (New Zealand, 11/2020).<br>WES-STEL: 950 mg/m <sup>3</sup> 15 minutes.<br>WES-STEL: 200 ppm 15 minutes.<br>WES-TWA: 713 mg/m <sup>3</sup> 8 hours.<br>WES-TWA: 150 ppm 8 hours.   |  |
| xylene                            |      |  | NZ HSWA 2015 (New Zealand, 11/2020).<br>WES-TWA: 217 mg/m <sup>3</sup> 8 hours.<br>WES-TWA: 50 ppm 8 hours.  |  |
| ethylbenzene                      |      |  | NZ HSWA 2015 (New Zealand, 11/2020).<br>WES-STEL: 543 mg/m <sup>3</sup> 15 minutes.<br>WES-STEL: 125 ppm 15 minutes.<br>WES-TWA: 434 mg/m <sup>3</sup> 8 hours.<br>WES-TWA: 100 ppm 8 hours.   |  |
| Recommended monitoring procedures | :    | atmosphere or biological monitoring r<br>of the ventilation or other control mea<br>protective equipment. Reference sho  | th exposure limits, personal, workplace<br>nay be required to determine the effectiveness<br>sures and/or the necessity to use respiratory<br>ould be made to appropriate monitoring<br>dance documents for methods for the<br>es will also be required. |  |
| 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, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. |  |  |
| Environmental exposure controls   | :    | Emissions from ventilation or work process equipment should be checked to ensure<br>they comply with the requirements of environmental protection legislation. In some<br>cases, fume scrubbers, filters or engineering modifications to the process<br>equipment will be necessary to reduce emissions to acceptable levels.  |  |  |
| Individual protection measur      | res  |  |  |  |
| Hygiene measures                  | :    | eating, smoking and using the lavator<br>Appropriate techniques should be use<br>Contaminated work clothing should ne  | bughly after handling chemical products, before<br>y and at the end of the working period.<br>ed to remove potentially contaminated clothing.<br>ot be allowed out of the workplace. Wash<br>. Ensure that eyewash stations and safety<br>location.      |  |
| Respiratory protection            | :    | fed respirator is not necessary, in whi<br>should be utilized to determine wheth<br>type of protection is appropriate. Res   | e-specific assessment determines that an air-<br>ch case the results of the risk assessment<br>er respiratory protection is necessary and what<br>spirator selection must be based on known or<br>rds of the product and the safe working limits         |  |

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### Section 8. Exposure controls/personal protection

| Hand protection     | : Chemical-resistant, impervious gloves complying with an approved standard should<br>be worn at all times when handling chemical products if a risk assessment indicates<br>this is necessary. Considering the parameters specified by the glove manufacturer,<br>check during use that the gloves are still retaining their protective properties. It<br>should be noted that the time to breakthrough for any glove material may be<br>different for different glove manufacturers. In the case of mixtures, consisting of<br>several substances, the protection time of the gloves cannot be accurately<br>estimated. |
|---------------------|---|
| Gloves              | : butyl rubber  |
| Eye protection      | : Chemical splash goggles.  |
| Skin protection     | <ul> <li>Appropriate footwear and any additional skin protection measures should be<br/>selected based on the task being performed and the risks involved and should be<br/>approved by a specialist before handling this product.</li> </ul>   |
| Restrictions on use | <ul> <li>Persons with a history of asthma, allergies or chronic or recurrent respiratory<br/>disease should not be employed in any process in which this product is used.</li> </ul>  |

## Section 9. Physical and chemical properties

| Physical state: Liquid.Colour: Not available.Odour: Not available.Odour threshold: Not available. |
|---|
| Odour : Not available.  |
|   |
| Odour threshold : Not available.  |
|   |
| pH : Not applicable.  |
| Melting point : Not available.  |
| Boiling point : 126°C (258.8°F)   |
| Flash point: Closed cup: 27°C (80.6°F)  |
| Flammability (solid, gas) : Not available.  |
| Lower and upper explosive : Not available.<br>(flammable) limits                                  |
| Vapour pressure : Not available.  |
| Relative density : 1.01   |
| Bulk Density (g/cm <sup>3</sup> ) : 1.01  |
| Solubility : Insoluble in the following materials: cold water.                                    |
| Partition coefficient: n- : Not applicable.<br>octanol/water                                      |
| Auto-ignition temperature : Not available.  |
| Decomposition temperature : Not available.  |
| Viscosity         : Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)                                 |

## Section 10. Stability and reactivity

| Stability                          | : | The product may not be stable under certain conditions of storage or use.       |
|------------------------------------|---|---|
| Possibility of hazardous reactions | : | Under normal conditions of storage and use, hazardous reactions will not occur. |

## Section 10. Stability and reactivity

| Conditions to avoid              | : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts slowly with water, resulting in the production of carbon dioxide. In closed containers, pressure build-up could result in distortion, expansion and, in extreme cases, bursting of the container. |
|----------------------------------|--|
| Incompatible materials           | : Reactive or incompatible with the following materials:<br>oxidising materials<br>strong acids<br>strong alkalis  |
| Hazardous decomposition products | <ul> <li>Depending on conditions, decomposition products may include the following<br/>materials: Cyanate and isocyanate. carbon oxides nitrogen oxides hydrogen<br/>cyanide metal oxide/oxides</li> </ul>   |
| Hazardous polymerisation         | : Under normal conditions of storage and use, hazardous polymerisation will not occur.   |

## Section 11. Toxicological information

#### Information on likely routes of exposure

| Inhalation          | : Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.   |
|---------------------|--|
| Ingestion           | : May cause damage to organs following a single exposure if swallowed.   |
| Skin contact        | : May cause damage to organs following a single exposure in contact with skin.<br>Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.          |
| Eye contact         | : Causes serious eye irritation.   |
| Symptoms related to | o the physical, chemical and toxicological characteristics   |
| Inhalation          | : Adverse symptoms may include the following:<br>wheezing and breathing difficulties<br>asthma<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations |
| Ingestion           | : Adverse symptoms may include the following:<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations  |
| Skin contact        | : Adverse symptoms may include the following:<br>irritation<br>redness<br>dryness<br>cracking<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations  |
| Eye contact         | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness   |
| Delayed and immedi  | ate effects as well as chronic effects from short and long-term exposure   |
| Acute toxicity      |  |
|                     |  |

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## Section 11. Toxicological information

| Product/ingredient name                        | Result                          | Species      | Dose                    | Exposure |
|--|---------------------------------|--------------|-------------------------|----------|
| Hexamethylene                                  | LD50 Dermal                     | Rabbit       | >2000 mg/kg             | -        |
| diisocyanate, oligomers                        |                                 |              |                         |          |
|  | LD50 Oral                       | Rat - Female | >2500 mg/kg             | -        |
| n-butyl acetate                                | LC50 Inhalation Vapour          | Rat          | >21.1 mg/l              | 4 hours  |
| -  | LC50 Inhalation Vapour          | Rat          | 2000 ppm                | 4 hours  |
|  | LD50 Dermal                     | Rabbit       | >17600 mg/kg            | -        |
|  | LD50 Oral                       | Rat          | 10.768 g/kg             | -        |
| xylene   | LD50 Dermal                     | Rabbit       | 1.7 g/kg                | -        |
| -  | LD50 Oral                       | Rat          | 4.3 g/kg                | -        |
| [3-(2,3-epoxypropoxy)propyl]                   | LC50 Inhalation Dusts and mists | Rat          | >5300 mg/m <sup>3</sup> | 4 hours  |
| trimethoxysilane                               |                                 |              | -                       |          |
| -  | LD50 Dermal                     | Rabbit       | 4.3 g/kg                | -        |
|  | LD50 Oral                       | Rat          | 7.01 g/kg               | -        |
| ethylbenzene                                   | LC50 Inhalation Vapour          | Rat          | 17.8 mg/l               | 4 hours  |
|  | LD50 Dermal                     | Rabbit       | 17.8 g/kg               | -        |
|  | LD50 Oral                       | Rat          | 3.5 g/kg                | -        |
| Solvent naphtha (petroleum),<br>light aromatic | LD50 Dermal                     | Rabbit       | 3.48 g/kg               | -        |
| -  | LD50 Oral                       | Rat          | 8400 mg/kg              | -        |

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

#### Irritation/Corrosion

| Product/ingredient name                          | Result                   | Species | Score | Exposure           | Observation |
|--|--------------------------|---------|-------|--------------------|-------------|
| xylene   | Skin - Moderate irritant | Rabbit  | -     | 24 hours 500<br>mg | -           |
| [3-(2,3-epoxypropoxy)propyl]<br>trimethoxysilane | Eyes - Cornea opacity    | Rabbit  | 11.8  | 1 minutes          | 24 hours    |

| 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.  |
| Sensitisation            |   |
| Conclusion/Summary       |   |
| Skin                     | : There are no data available on the mixture itself.  |
| Respiratory              | : There are no data available on the mixture itself.  |
| 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. |
| Inhalation               | : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.   |
| Skin contact             | : 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.   |
| Teratogenicity           | : Suspected of damaging the unborn child.   |
|                          |   |

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### Section 11. Toxicological information

| Developmental effects         | : No known significant effects or critical hazards.  |
|-------------------------------|--|
| Fertility effects             | : Suspected of damaging fertility.                   |
| Chronic toxicity              |  |
| Not available.                |  |
| <b>Carcinogenicity</b>        |  |
| <b>Conclusion/Summary</b>     | : There are no data available on the mixture itself. |
| <b>Mutagenicity</b>           |  |
| <b>Conclusion/Summary</b>     | : There are no data available on the mixture itself. |
| <b>Teratogenicity</b>         |  |
| Conclusion/Summary            | : There are no data available on the mixture itself. |
| Reproductive toxicity         |  |
| <b>Conclusion/Summary</b>     | : There are no data available on the mixture itself. |
| Specific target organ toxicit | ty.  |
|                               |  |

| Name | •••                      | Route of exposure | Target organs |
|------|--------------------------|-------------------|---------------|
|      | Category 2<br>Category 2 | -<br>inhalation   | -             |
|      | 00.009017 =              |                   |               |

#### Aspiration hazard

| Name  |  |
|---|--|
| Solvent naphtha (petroleum), light aromatic |  |

#### Numerical measures of toxicity

#### Acute toxicity estimates

| Route                        | ATE value     |
|------------------------------|---------------|
| Oral                         | 3091.35 mg/kg |
| Dermal                       | 10510.6 mg/kg |
| Inhalation (vapours)         | 49.27 mg/l    |
| Inhalation (dusts and mists) | 3.14 mg/l     |

#### **Other 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 vapour/ aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitisation of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Repeated exposure may lead to permanent respiratory disability. Moisture-sensitive material. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Avoid contact with skin and clothing.

### Section 12. Ecological information

#### **Ecotoxicity**

: No known significant effects or critical hazards.

#### Aquatic and terrestrial toxicity

| Product/ingredient name                          | Result                          | Species                         | Exposure |
|--|---------------------------------|---------------------------------|----------|
| examethylene diisocyanate, oligomers             | Acute EC50 >1000 mg/l           | Algae - scenedesmus subspicatus | 72 hours |
|  | Acute EC50 >100 mg/l            | Daphnia - daphnia magna         | 48 hours |
|  | Acute LC50 >100 mg/l            | Fish - Danio rerio (zebra fish) | 96 hours |
| n-butyl acetate                                  | Acute LC50 18 mg/l              | Fish                            | 96 hours |
| [3-(2,3-epoxypropoxy)propyl]<br>trimethoxysilane | Acute LC50 324 mg/l             | Daphnia                         | 48 hours |
| ethylbenzene                                     | Acute EC50 1.8 mg/l Fresh water | Daphnia                         | 48 hours |
| ,  | Chronic NOEC 1 mg/l Fresh water | Daphnia - Ceriodaphnia dubia    | -        |
| Solvent naphtha (petroleum), light aromatic      | Acute LC50 8.2 mg/l             | Fish                            | 96 hours |

#### Persistence/degradability

| Product/ingredient name                   | Test                  | Result              |            | Dose | Inoculum           |
|---|-----------------------|---------------------|------------|------|--------------------|
| n-butyl acetate                           | TEPA and<br>OECD 301D | 83 % - Readily - 28 |            | -    | -                  |
| ethylbenzene                              | -                     | 79 % - Readily - 10 | days       | -    | -                  |
| Product/ingredient name                   | Aquatic half-life     |                     | Photolysis | \$   | Biodegradability   |
| ✓ examethylene diisocyanate,<br>oligomers | -                     |                     | -          |      | Not readily        |
| n-butyl acetate                           | -                     |                     | -          |      | Readily            |
| xylene<br>ethylbenzene                    | -                     |                     | -          |      | Readily<br>Readily |

#### **Bioaccumulative potential**

| Product/ingredient name               | LogPow      | BCF | Potential  |
|---------------------------------------|-------------|-----|------------|
| Hexamethylene diisocyanate, oligomers | 5.54        | 3.2 | low        |
| n-butyl acetate                       | 2.3         |     | low        |
| xylene<br>ethylbenzene                | 3.12<br>3.6 |     | low<br>low |

#### Mobility in soil

Soil/water partition coefficient (Koc)

Other adverse effects

: Not available.

: No known significant effects or critical hazards.

Do not allow to enter drains or watercourses.

## Section 13. Disposal considerations

#### **Disposal methods**

: The generation of waste should be avoided or minimised 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 nonrecyclable 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. This material and

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### Section 13. Disposal considerations

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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

#### **Not suitable:** : Do not allow to enter drains or watercourses.

The classification of the product may meet the criteria for a hazardous waste. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

### **14. Transport information**

|                             | NZ              | IMDG            | ΙΑΤΑ            |
|-----------------------------|-----------------|-----------------|-----------------|
| UN number                   | UN1263          | UN1263          | UN1263          |
| UN proper<br>shipping name  | PAINT           | PAINT           | PAINT           |
| Transport hazard class(es)  | 3               | 3               | 3               |
|                             | PANAALE         |                 |                 |
| Packing group               | III             | III             |                 |
| Environmental hazards       | No.             | No.             | No.             |
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. |

#### Additional information

| NZ           | : None identified. |
|--------------|--------------------|
| Hazchem code | : •3Y              |
| IMDG         | : None identified. |
| ΙΑΤΑ         | : None identified. |

Special precautions for user : 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

| New Zealand Inventory of<br>Chemicals (NZIoC) | : All components are listed or exempted.   |
|---|--|
| HSNO Approval Number                          | : HSR002669 Flammable, Toxic [6.7]   |
| Emergency Management<br>Regulations           | : Level 1: Labelling required when 1L is present in a workplace.   |
|   | Level 2: MSDS required when any amount is present in a workplace. At least 2 x 4.5 kg powder fire extinguishers required when 500L is present in a workplace.  |
|   | Level 3: Emergency Response Plans and Secondary Containment required when 1000L is stored.   |
|   | Flammable Signage required when 1000L is present in a workplace.   |
|   | Toxic Signage required when 10000L is present in a workplace.  |
| Classes 1 to 5 Control<br>Regulations         | <ul> <li>Hazardous Atmosphere Zones required for quantities greater than:</li> <li>100L (closed), 25L (decanting), 5L (open occasionally), 1L (open continuously).</li> <li>Hazardous Substances Location Certificate required for quantities greater than:</li> <li>1500L (containers up to 5L), 500L (containers &gt;5L), 250L (open containers).</li> </ul> |
| Approved Handler                              | : Not applicable.  |
| International regulations                     |  |
| Chemical Weapon Conver                        | ion List Schedules I, II & III Chemicals   |
| Not listed.                                   |  |
| Montreal Protocol                             |  |
| Not listed.                                   |  |
| Stockholm Convention on                       | Persistent Organic Pollutants  |
| Not listed.                                   |  |
| Rotterdam Convention on                       | Prior Informed Consent (PIC)   |
| Not listed.                                   |  |
| UNECE Aarhus Protocol o<br>Not listed.        | POPs and Heavy Metals  |
|   |  |

## Section 16. Other information

| Date of issue  | : 31 May 2022   |  |  |  |
|--|---|--|--|--|
| Indicates information that has changed from previously issued version. |   |  |  |  |
| Key to abbreviations   | : STEL = Short Term Exposure Limit<br>TWA = Time-Weighted Average<br>WES = Work Exposure Standard |  |  |  |
| References   | : Not available.  |  |  |  |
| Organisation that prepared the SDS                                     | : EHS   |  |  |  |
| <u>Disclaimer</u>  |   |  |  |  |

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### Section 16. Other information

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.