SAFETY DATA SHEET



Date of issue/Date of revision 29 March 2023 Version 1.01

| Section 1. Identification | | |
|---|---|--|
| Product code | : 00468437 | |
| Product name | : SIGMADUR 1800 BASE BASE L | |
| Product type | : Liquid. | |
| Relevant identified uses of the substance or mixture and uses advised against | | |
| Product use | Coating. Professional applications, Used by spraying. | |
| Supplier's details | : PPG Industries (Singapore) Pte. Ltd., No. 1 Tuas Basin Close, Singapore 638803. Tel +65 68653737 | |
| Emergency telephone number (with hours of operation) | : CHEMTREC +(65)-31581349 (CCN 17704) | |

Section 2. Hazards identification

| Classification of the substance or mixture | : FLAMMABLE LIQUIDS - Category 3 |
|---|--|
| GHS label elements, inclu | ding precautionary statements |
| Hazard pictograms | |
| Signal word | : Warning |
| Hazard statements | : Flammable liquid and vapour. |
| Precautionary statement | <u>S</u> |
| Prevention | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| Response | : Not applicable. |
| Storage | : Not applicable. |
| Disposal | : Not applicable. |
| Other hazards which do n result in classification | ot : Prolonged or repeated contact may dry skin and cause irritation. |

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|------------------------|------------|

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

| CAS number | : Not applicable. |
|------------|-------------------|
| EC number | : Mixture. |

| Ingredient name | % | CAS number |
|---|------------|------------|
| p-butyl acetate | 10 - <20 | 123-86-4 |
| xylene | 5 - <10 | 1330-20-7 |
| Talc , not containing asbestiform fibres | 5 - <10 | 14807-96-6 |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | 0.3 - <1 | 41556-26-7 |
| 2-hydroxyethyl methacrylate | 0.1 - <0.3 | 868-77-9 |
| propylidynetrimethanol | 0.1 - <0.3 | 77-99-6 |

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 and hence require reporting in this section.

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

SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

Description of necessary first aid measures

| Eye contact | : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. |
|--------------|--|
| 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. Keep person warm and at rest. Do NOT induce vomiting. |

Most important symptoms/effects, acute and delayed

| Potential acute health effe | icts | |
|-----------------------------|--|------------|
| Eye contact | : No known significant effects or critical hazards. | |
| Inhalation | : No known significant effects or critical hazards. | |
| Skin contact | : Defatting to the skin. May cause skin dryness and irritation. | |
| Ingestion | : No known significant effects or critical hazards. | |
| Over-exposure signs/sym | <u>ptoms</u> | |
| Eye contact | : No specific data. | |
| Inhalation | : No specific data. | |
| Skin contact | : Adverse symptoms may include the following: irritation dryness cracking | |
| Ingestion | : No specific data. | |
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Section 4. First aid measures

| Indication of immediate medical attention and special treatment needed, if necessary | | |
|--|---|----|
| 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation | n. |

See toxicological information (Section 11)

Section 5. Firefighting measures

| Extinguishing media | |
|---|--|
| Suitable extinguishing media | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Unsuitable extinguishing media | : Do not use water jet. |
| Specific hazards arising from the chemical | : Flammable liquid and vapour. 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. |
| Hazardous thermal decomposition products | : Decomposition products may include the following materials: carbon oxides metal oxide/oxides |
| Special protective actions for fire-fighters | : 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. |
| Special protective equipment for fire-fighters | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| For non-emergency personnel | tion shall be taken involving any person uate surrounding areas. Keep unneces ng. Do not touch or walk through spilt ures, smoking or flames in hazard area. de adequate ventilation. Wear appropr quate. Put on appropriate personal pro | sary and unprotected personnel from material. Shut off all ignition sources. Avoid breathing vapour or mist. iate respirator when ventilation is |
|--------------------------------|--|---|
| For emergency responders | cialised clothing is required to deal with nation in Section 8 on suitable and unsu nation in "For non-emergency personne | uitable materials. See also the |

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Section 6. Accidental release measures

Environmental precautions : Avoid dispersal of spilt 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).

Methods and material 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 the 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 non-combustible, 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 spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

Section 7. Handling and storage

Precautions for safe handling

| Protective measures | : | Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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. |
|--|---|--|
| Advice on general occupational hygiene | : | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| 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. 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. |

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Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | | | Exposure limits | |
|--|----------------------------------|---|---|--|
| rfbutyl acetate | | | Workplace Safety and Health Act (Singapore, 2/2006). PEL (short term): 950 mg/m ³ 15 minutes. PEL (short term): 200 ppm 15 minutes. PEL (long term): 713 mg/m ³ 8 hours. PEL (long term): 150 ppm 8 hours. Workplace Safety and Health Act (Singapore, 2/2006). [Xylene] PEL (short term): 651 mg/m ³ 15 minutes. PEL (short term): 150 ppm 15 minutes. PEL (long term): 434 mg/m ³ 8 hours. PEL (long term): 100 ppm 8 hours. | |
| Talc , not containing asbestiform fibres | | res | Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 2 mg/m ³ 8 hours. | |
| Recommended monitoring procedures | nat | | riate monitoring standards. Reference to nods for the determination of hazardous | |
| Appropriate engineering controls | ver cor als | ntilation or other engineering contro ntaminants below any recommende | se process enclosures, local exhaust ols to keep worker exposure to airborne ed or statutory limits. The engineering controls concentrations below any lower explosive equipment. | |
| Environmental exposure controls | the cas | 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. | | |
| Individual protection measur | <u>es</u> | | | |
| Hygiene measures | eat Ap∣ Wa saf | 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. | | |
| Eye/face protection Skin protection | : Sat | : Safety glasses with side shields. | | |
| Hand protection | be this che sho diff | worn at all times when handling ch s is necessary. Considering the pa eck during use that the gloves are s ould be noted that the time to break ferent for different glove manufactu | s complying with an approved standard should emical products if a risk assessment indicates rameters specified by the glove manufacturer, still retaining their protective properties. It through for any glove material may be rers. In the case of mixtures, consisting of the of the gloves cannot be accurately | |

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Section 8. Exposure controls/personal protection

| | estimated. |
|------------------------|--|
| Gloves | : For prolonged or repeated handling, use the following type of gloves: |
| | May be used: butyl rubber Recommended: polyvinyl alcohol (PVA), Viton® Not recommended: nitrile 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. |
| Other skin protection | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| 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. |

Section 9. Physical and chemical properties

| <u>Appearance</u> | | |
|---------------------------|---|--|
| Physical state | 1 | Liquid. |
| Odour | 1 | Characteristic. |
| рН | 1 | Not applicable. |
| Boiling point | : | >37.78°C (>100°F) |
| Flash point | : | Closed cup: 23°C (73.4°F) |
| Evaporation rate | : | Highest known value: 1 (n-butyl acetate) Weighted average: 0.95compared with butyl acetate |
| Flammability (solid, gas) | : | liquid |
| Vapour pressure | : | Highest known value: 1.5 kPa (11.3 mm Hg) (at 20°C) (n-butyl acetate). Weighted average: 1.36 kPa (10.2 mm Hg) (at 20°C) |
| Vapour density | : | Highest known value: 4 (Air = 1) (n-butyl acetate). Weighted average: 3.93 (Air = 1) |
| Relative density | : | 1.33 |
| Solubility(ies) | | Media Result |
| Solubility(les) | 1 | cold water Not soluble |
| Auto-ignition temperature | : | Lowest known value: 415°C (779°F) (n-butyl acetate). |
| Viscosity | : | Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt) |

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Section 10. Stability and reactivity

| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
|------------------------------------|--|
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : When exposed to high temperatures may produce hazardous decomposition products. |
| Incompatible materials | : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids. |
| Hazardous decomposition products | : Depending on conditions, decomposition products may include the following materials: carbon oxides metal oxide/oxides |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|------------------------|---------|--------------|----------|
| 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 | - |
| bis(1,2,2,6,6-pentamethyl- | LD50 Oral | Rat | 3.125 g/kg | - |
| 4-piperidyl) sebacate | | | 00 | |
| 2-hydroxyethyl methacrylate | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | 5050 mg/kg | - |
| propylidynetrimethanol | LD50 Dermal | Rabbit | 10 g/kg | - |
| | LD50 Oral | Rat | 14000 mg/kg | - |

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

Irritation/Corrosion

| Skin - Moderate irritant There are no data available There are no data available There are no data available | on the mixture | | 24 hours 500 mg | - |
|---|-----------------------------|--|--|--|
| There are no data available | on the mixture | | | |
| There are no data available | on the mixture | | | |
| | | itself. | | |
| There are no data available | | | | |
| The data aranapie | on the mixture | itself. | | |
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Section 11. Toxicological information

| 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 tox | <u>cicity (single exposure)</u> |

| Name | Category | Route of exposure | Target organs |
|--|--------------------------|-------------------|---|
| n-butyl acetate xylene | Category 3 Category 3 | | Narcotic effects Respiratory tract irritation |
| Talc , not containing asbestiform fibres | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

| Name | Result |
|--------|--------------------------------|
| xylene | ASPIRATION HAZARD - Category 1 |

| Information on likely routes of exposure | : Not available. |
|---|--|
| Potential acute health effect | <u>s</u> |
| Eye contact | : No known significant effects or critical hazards. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : Defatting to the skin. May cause skin dryness and irritation. |
| Ingestion | : No known significant effects or critical hazards. |
| <u>Symptoms related to the phy</u> Eye contact Inhalation | ysical, chemical and toxicological characteristics : No specific data. : No specific data. |
| Skin contact | : Adverse symptoms may include the following: irritation dryness cracking |
| Ingestion | : No specific data. |

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Section 11. Toxicological information

| Delayed and immediate effe | cts as well as chronic effects from short and long-term exposure |
|------------------------------|--|
| <u>Short term exposure</u> | |
| Potential immediate effects | : Not available. |
| Potential delayed effects | : Not available. |
| Long term exposure | |
| Potential immediate effects | : Not available. |
| Potential delayed effects | : Not available. |
| Potential chronic health eff | ects |
| General | : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis. |
| Carcinogenicity | : No known significant effects or critical hazards. |
| Mutagenicity | : No known significant effects or critical hazards. |
| Reproductive toxicity | : No known significant effects or critical hazards. |

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|------------------------------|----------------|
| Dermal | 30227.33 mg/kg |
| Inhalation (vapours) | 195.59 mg/l |
| Inhalation (dusts and mists) | 26.67 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. Avoid contact with skin and clothing.

Section 12. Ecological information

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| Toxicity | | | | |
|---|---|------------------------|----------------------|--|
| Product/ingredient name | Result | Species | Exposure | |
| n-butyl acetate propylidynetrimethanol | Acute LC50 18 mg/l Acute LC50 >1000 mg/l | Fish Fish | 96 hours 96 hours | |
| Conclusion/Summary | : There are no data available of | on the mixture itself. | | |

Persistence/degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-------------------------|-----------------------|--------------------------|------|----------|
| n-butyl acetate | TEPA and OECD 301D | 83 % - Readily - 28 days | - | - |

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Section 12. Ecological information

Conclusion/Summary

: There are no data available on the mixture itself.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---------------------------|-------------------|------------|--------------------|
| n-butyl acetate xylene | - | | Readily Readily |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|--|------------------------------|-----------------------|--------------------------|
| n-butyl acetate xylene 2-hydroxyethyl methacrylate propylidynetrimethanol | 2.3 3.12 0.42 -0.47 | - 7.4 to 18.5 - | low low low low |

Mobility in soil

Singapore

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

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 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. 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. 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.

Section 14. Transport information

| | UN | IMDG | ΙΑΤΑ |
|----------------------------|--------|--------|--------|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3 | 3 | 3 |
| Packing group | III | | |

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Section 14. Transport information

| | - | | |
|-----------------------------|-----------------|-----------------|-----------------|
| Environmental hazards | No. | No. | No. |
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. |

Additional information

| UN | : None identified. |
|------|--------------------|
| 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

Singapore - hazardous chemicals under government control

None.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

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Section 16. Other information

| <u>History</u> | |
|--------------------------------|---|
| Date of issue/Date of revision | : 29 March 2023 |
| Date of previous issue | : 11/17/2022 |
| Version | : 1.01 |
| Prepared by | : EHS |
| Key to abbreviations | ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association IBC = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) |

Section 16. Other information

UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

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.