SAFETY DATA SHEET

Date of issue/Date of revision 20 March 2025 Version 4.02



Section 1. Identification

Product code : 41090-C1225/14.2L

Product identifier : SIGMASHIELD 1090 BASE GREY 1225

Other means of : **Ø**0197524

identification

Recommended use and restrictions

Use of the substance/

mixture

: Coating.

Uses advised against : Not applicable.

Supplier's details : PPG Industries Australia Pty Limited

(ABN 82 055 500 939) 14-20 McNaughton Rd CLAYTON Victoria 3168

Tel: (03) 9263 6000 Fax: (03) 9263 6970

24/7 Emergency telephone

number

: Australia 1800 883 254 / New Zealand 0800 000 096 For international shipping emergencies: 1-412-391-1618

Section 2. Hazard(s) identification

Classification of the : SKIN CORROSION/IRRITATION - Category 2

substance or mixture SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

SKIN SENSITISATION - Category 1

GERM CELL MUTAGENICITY - Category 2

GHS label elements

Hazard pictograms :





Signal word : WARNING

Hazard statements : Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation.

Suspected of causing genetic defects.

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. Avoid breathing

vapour. Wash thoroughly after handling.

Response : F exposed or concerned: Get medical advice or attention. IF ON SKIN: Wash with

plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or

attention.

Storage : Not applicable.

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Section 2. Hazard(s) identification

Disposal Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Supplemental label

elements

: Not applicable.

Other hazards which do not : None known.

result in classification

Section 3. Composition and ingredient information

Substance/mixture : Mixture

CAS number/other identifiers

CAS number : Not applicable. EC number : Mixture.

Ingredient name	CAS number	% (w/w)
ofs-[4-(2,3-epoxipropoxi)phenyl]propane	1675-54-3	10 - <30
2,3-epoxypropyl neodecanoate	26761-45-5	1 - <10
benzyl alcohol	100-51-6	1 - <10

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.

SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

Description of necessary first aid measures

: Remove contact lenses, irrigate copiously with clean, fresh water, holding the **Eye contact**

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 effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

> pain or irritation watering redness

Inhalation : No specific data.

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Section 4. First aid measures

Skin contact Adverse symptoms may include the following:

> irritation redness

Ingestion : No specific data.

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. Wash contaminated clothing thoroughly with water before removing it, or wear

gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing media

: None known.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

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

: Use an extinguishing agent suitable for the surrounding fire.

Special protective actions for fire-fighters

metal oxide/oxides

: 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.

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

Hazchem code : Not applicable.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: 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".

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

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Section 6. Accidental release measures

Small spill

: Stop leak if without risk. Move containers from spill area. 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. 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). 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 ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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.

including any incompatibilities

Conditions for safe storage, : Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. 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. 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.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

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Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
s-[4-(2,3-epoxipropoxi)phenyl]propane	DFG MAC-values list (Germany, 7/2023) Skin sensitiser.
benzyl alcohol	DFG MAC-values list (Germany, 7/2023) Absorbed through skin. PEAK 15 minutes: 44 mg/m³ 4 times per shift [Interval: 1 hour]. PEAK 15 minutes: 10 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 22 mg/m³.
	TWA 8 hours: 5 ppm.

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

For products that are sprayed, where practicable use a spray booth designed and maintained in accordance with AS/ NZS 4114.

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.

Individual protection measures

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.

Eye/face protection Skin protection

: Chemical splash goggles.

Hand protection

: 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

res : 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.

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.

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Section 8. Exposure controls and personal protection

Restrictions on use : Not applicable.

References: Eye protectors should conform to AS/NZS 1336 and AS/NZS 1337. Chemical-resistant gloves should conform to AS/NZS 2161.1. Respiratory protection should conform to AS/NZS 1715 and AS/NZS 1716. Occupational footwear should conform to AS/NZS 2210.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.
Colour : Grey.

Odour : Characteristic.

Odour threshold : Not available.

pH : Not applicable.

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 170°C (338°F)

Evaporation rate : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive : Not available.

(flammable) limits

Vapour pressure: Not available.Vapour density: Not available.

Relative density : 2.05 Bulk Density (g/cm³) : 2.059

Solubility(ies) : Media Result

Cold water Not soluble

: Not applicable.

øóld water

Partition coefficient: n-octanol/water

ctanol/water

Auto-ignition temperature: Not available.Decomposition temperature: Not available.Viscosity: Not Applicable

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: Stable under recommended storage and handling conditions (see Section 7). 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.

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Product name SIGMASHIELD 1090 BASE GREY 1225

Section 10. Stability and reactivity

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	Dose / Exposure
bis-[4-(2,3-epoxipropoxi) phenyl]propane	Rabbit - Dermal - LD50	23000 mg/kg
	Rat - Oral - LD50	15000 mg/kg
2,3-epoxypropyl neodecanoate	Rat - Oral - LD50	9.6 g/kg
	Rat - Dermal - LD50	3800 mg/kg
benzyl alcohol	Rabbit - Dermal - LD50	>2000 mg/kg
	Rat - Oral - LD50	1200 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>5 mg/l [4 hours]

Conclusion/Summary Irritation/Corrosion

: There are no data available on the mixture itself.

IIII ation/oorlogion	
Product/ingredient name	Result
s-[4-(2,3-epoxipropoxi) phenyl]propane	Rabbit - Eyes - Redness of the conjunctivae Duration of treatment/exposure: 24 hours Irritation score: 0.4
	Rabbit - Eyes - Mild irritant Duration of treatment/exposure: 24 hours Fully reversible in 7 days or less
	Rabbit - Skin - Erythema/Eschar Duration of treatment/exposure: 4 hours Irritation score: 0.8
	Rabbit - Skin - Oedema Duration of treatment/exposure: 4 hours Irritation score: 0.5
	Rabbit - Skin - Mild irritant Duration of treatment/exposure: 4 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

Product/ingredient name	Species / Route of exposure	Result
s-[4-(2,3-epoxipropoxi) phenyl]propane	Mouse - skin	Result: Sensitising

Conclusion/Summary

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

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

Mutagenicity

Not available.

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Product name SIGMASHIELD 1090 BASE GREY 1225

Section 11. Toxicological information

Conclusion/Summary

: There are no data available on the mixture itself.

Carcinogenicity

Not available.

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

Reproductive toxicity

Not available.

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

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes : Not available.

of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion: No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Conclusion/Summary

inhere are no data available on the mixture itself. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). Exposure to component solvent vapour concentrations in excess of the stated

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Section 11. Toxicological information

occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate

effects

: There are no data available on the mixture itself.

Potential delayed effects

Potential delayed effects

: There are no data available on the mixture itself.

Long term exposure

Potential immediate

effects

: There are no data available on the mixture itself.

There are no data available on the mixture itself.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity : Suspected of causing genetic defects.

Reproductive toxicity: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIGMASHIELD 1090 BASE GREY 1225 bis-[4-(2,3-epoxipropoxi)phenyl]propane 2,3-epoxypropyl neodecanoate benzyl alcohol	65168.7	N/A	N/A	N/A	68.4
	15000	23000	N/A	N/A	N/A
	9600	3800	N/A	N/A	N/A
	1200	N/A	N/A	N/A	1.5

Section 12. Ecological information

Toxicity

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Product name SIGMASHIELD 1090 BASE GREY 1225

Section 12. Ecological information

Product/ingredient name	Result	Species	Dose / Exposure
s-[4-(2,3-epoxipropoxi) phenyl]propane	Chronic - NOEC	Daphnia	0.3 mg/l [21 days]
	Acute - LC50 - Fresh water	Daphnia - daphnia magna	1.8 mg/l [48 hours]
2,3-epoxypropyl neodecanoate	Acute - LC50	Fish - Oncorhynchus mykiss	9.6 mg/l [96 hours]
	Acute - EC50	Daphnia - <i>Daphnia magna</i>	4.8 mg/l [48 hours]
	Acute - EC50	Algae	3.5 mg/l [96 hours]

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
s-[4-(2,3-epoxipropoxi) phenyl]propane	-	-	Not readily
2,3-epoxypropyl neodecanoate	-	-	Not readily
benzyl alcohol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
√3-epoxypropyl neodecanoate	4.4	-	High
benzyl alcohol	0.87	-	Low

Mobility in soil

Soil/water partition coefficient

: 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

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Product name SIGMASHIELD 1090 BASE GREY 1225

Section 14. Transport information

	ADG	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class (es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

: None identified. **ADG** Hazchem code : Not applicable. **IMDG** : None identified. **IATA** : 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

Standard for the Uniform Scheduling of Medicines and Poisons

SUSMP : Not scheduled

Model Work Health and Safety Regulations - Scheduled Substances

Ingredient name	Schedule
crystalline silica, respirable powder (>10 microns)	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 1%]

Australia inventory (AIIC) : All components are listed or exempted. New Zealand (NZIoC) : All components are listed or exempted.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

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Product name SIGMASHIELD 1090 BASE GREY 1225

Section 15. Regulatory information

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Any other relevant information

: 20 March 2025

History

Date of issue/Date of

revision

Date of previous issue : 6/14/2022

Prepared by : EHS

Key to abbreviations : ADG = Australian Dangerous Goods

ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = 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) NOHSC = National Occupational Health and Safety Commission SUSMP = Standard Uniform Schedule of Medicine and Poisons

UN = United Nations

References : Not available.

▼ 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.

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