

SAFETY DATA SHEET



Date of issue : 14 September 2020

Version : 3

Section 1. Identification

Product code : 41090-C1225/14.2L
Product name : SIGMASHIELD 1090 BASE GREY 1225
Product type : Liquid.
Recommended use and restrictions
**Use of the substance/
mixture** : Coating.
Uses advised against : Not applicable.

Supplier's details : PPG INDUSTRIES NEW ZEALAND LTD
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AUCKLAND
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09 573 1620, 0800 659378
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**Emergency telephone
number (with hours of
operation)** : New Zealand 0800 000 096 (24 hours) / Australia 1800 883 254 (24 hours)
For international shipping emergencies: 1-412-391-1618

**e-mail address of person
responsible for this SDS** : ehsnz@ppg.com

Section 2. Hazards identification

HSNO Classification : 3 - SKIN IRRITATION - Category A
6.4 - EYE IRRITATION - Category A (Irritant)
6.5 - SENSITIZATION - Category B (Skin)
9.1 - AQUATIC ECOTOXICITY - Category C

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 not classified as DANGEROUS GOODS according to criteria in New Zealand Land Transport Rule: Dangerous Goods 2005.

GHS label elements

Signal word : Warning

Hazard statements : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Avoid release to the environment. Avoid breathing vapour. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Section 2. Hazards identification

- Response** : **IF ON SKIN**: Take off contaminated clothing and wash before reuse. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. **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/attention.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Symbol :

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture**CAS number/other identifiers****Product code** : 41090-C1225/14.2L

Hazardous ingredients	%	CAS number
<input checked="" type="checkbox"/> Bis-[4-(2,3-epoxypropoxy)phenyl]propane	10 - <30	1675-54-3
2,3-epoxypropyl neodecanoate	1 - <10	26761-45-5
benzyl alcohol	1 - <10	100-51-6
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	<1	100545-48-0

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.

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 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.

Section 4. First aid measures

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eyes : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Specific treatments : Not available.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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 : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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

Special precautions 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.

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 : 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 (see Section 8).

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). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and material for containment and cleaning up

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 : Put on appropriate personal protective equipment (see Section 8). 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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. 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.

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 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. 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/personal protection

Control parameters

Ingredient name	Exposure limits
None.	

Section 8. Exposure controls/personal protection

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Appropriate engineering controls** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- 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.
- 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.
- 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** : butyl rubber
- Eye protection** : Chemical splash goggles.
- Skin 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.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Grey.
- Odour** : Characteristic.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.

Section 9. Physical and chemical properties

Boiling point	: >37.78°C (>100°F)
Flash point	: <input checked="" type="checkbox"/> losed cup: 170°C (338°F)
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapour pressure	: Not available.
Relative density	: <input checked="" type="checkbox"/> .05
Bulk Density (g/cm ³)	: <input checked="" type="checkbox"/> .059
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)

Section 10. Stability and reactivity

Stability	: Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Reactive or incompatible with the following materials: oxidising materials strong acids strong alkalis
Hazardous decomposition products	: <input checked="" type="checkbox"/> Depending on conditions, decomposition products may include the following materials: carbon oxides metal oxide/oxides
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	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: <input checked="" type="checkbox"/> Causes skin irritation. May cause an allergic skin reaction.
Eye contact	: Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: No specific data.
Ingestion	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness

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

Section 11. Toxicological information**Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
bis-[4-(2,3-epoxipropoxy)phenyl]propane	LD50 Dermal	Rabbit	23000 mg/kg	-
	LD50 Oral	Rat	15000 mg/kg	-
2,3-epoxypropyl neodecanoate	LD50 Dermal	Rat	3800 mg/kg	-
	LD50 Oral	Rat	9.6 g/kg	-
benzyl alcohol	LC50 Inhalation Dusts and mists	Rat	>4178 mg/m ³	4 hours
	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1.23 g/kg	-
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	LC50 Inhalation Dusts and mists	Rat	5.05 mg/l	4 hours
	LD50 Oral	Rat	>2000 mg/kg	-

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Eyes - Redness of the conjunctivae	Rabbit	0.4	24 hours	-
	Eyes - Mild irritant	Rabbit	-	24 hours	-
	Skin - Erythema/Eschar	Rabbit	0.8	4 hours	-
	Skin - Oedema	Rabbit	0.5	4 hours	-
	Skin - Mild irritant	Rabbit	-	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	Route of exposure	Species	Result
bis-[4-(2,3-epoxipropoxy)phenyl]propane	skin	Mouse	Sensitising
	skin	Guinea pig	Sensitising
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine			

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 : No known significant effects or critical hazards.

Skin contact : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Section 11. Toxicological information

- Mutagenicity** : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Chronic toxicity

Not available.

Carcinogenicity

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

Mutagenicity

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

Teratogenicity

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

Reproductive toxicity

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

Not available.

Aspiration hazard

Not available.

Numerical measures of toxicity**Acute toxicity estimates**

Route	ATE value
<input checked="" type="checkbox"/> Oral	66797.93 mg/kg
<input type="checkbox"/> Dermal	108614.51 mg/kg

Other information

Sanding and grinding dusts may be harmful if inhaled. 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.

Section 12. Ecological information

Ecotoxicity : This material is harmful to aquatic life with long lasting effects.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> Bis-[4-(2,3-epoxipropoxy)phenyl]propane	Acute LC50 1.8 mg/l Fresh water	Daphnia - daphnia magna	48 hours
2,3-epoxypropyl neodecanoate	Chronic NOEC 0.3 mg/l Acute EC50 3.5 mg/l	Daphnia Algae	21 days 96 hours
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	Acute EC50 4.8 mg/l Acute LC50 9.6 mg/l Acute EC50 >100 mg/l	Daphnia - Daphnia magna Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata	48 hours 96 hours 72 hours

Section 12. Ecological information

	Acute EC50 >10 mg/l Acute LC50 >10 mg/l	Daphnia - Daphnia magna Fish - Oncorhynchus mykiss	48 hours 96 hours
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Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	301D Ready Biodegradability - Closed Bottle Test	22 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Bis-[4-(2,3-epoxypropoxy)phenyl]propane	-	-	Not readily
2,3-epoxypropyl neodecanoate	-	-	Not readily
benzyl alcohol	-	-	Readily
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	-	-	Inherent

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2,3-epoxypropyl neodecanoate	4.4	-	high
benzyl alcohol	1.1	-	low
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	>5.86	-	high

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : 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 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.
- Not suitable:** : Do not allow to enter drains or watercourses.

Section 13. Disposal considerations

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

Additional information

NZ	: None identified.
ADG	: None identified.
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 to IMO instruments : Not applicable.

Section 15. Regulatory information

New Zealand Inventory of Chemicals (NZIoC) : All components are listed or exempted.

HSNO Approval Number : HSR002670 Subsidiary Hazard

Emergency Management Regulations : Level 1: Not applicable.

Level 2: MSDS required when any amount is present in a workplace.

Level 3: Emergency Response Plans and Secondary Containment required when 1000L is stored.

Ecotoxic Signage required when 1000L is present in a workplace.

Approved Handler : Not applicable.

Product code 41090-C1225/14.2L

Date of issue 14 September
2020

Version 3

Product name SIGMASHIELD 1090 BASE GREY 1225

Section 15. Regulatory information

Section 16. Other information

Date of issue : 14 September 2020

✔ Indicates information that has changed from previously issued version.

Key to abbreviations : STEL = Short Term Exposure Limit
TWA = Time-Weighted Average
WES = Work Exposure Standard

References : Not available.

**Organisation that prepared
the MSDS** : EHS

Disclaimer

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