SAFETY DATA SHEET



Date of issue/Date of revision4 December 2024Version 4.03

Section 1. Identification		
Product code	: 00281101	
Product name	: AMERLOCK 2/400 BASE PEARL GREY	
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 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

GHS label elements, including precautionary statements

Hazard pictograms	
Signal word	: Warning
Hazard statements	 Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. Toxic to aquatic life with long lasting effects.
Precautionary statements	

Section 2. Hazards identification

Prevention	:	Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapour. Wash thoroughly after handling.
Response	:	Collect spillage. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. 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	:	Store in a well-ventilated place. Keep container tightly closed.
Disposal	1	Not applicable.
Other hazards which do not		Prolonged or repeated contact may dry skin and cause irritation.

result in classification

ated contact may

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

CAS number/other identifiers

CAS number EC number	Not applicable.Mixture.		
Ingredient name		%	CAS number
Faction product: bisphenol-A-(epichlorhydrin); epoxy resin Talc , not containing asbestiform fibres Solvent naphtha (petroleum), light aromatic 1,2,4-trimethylbenzene		50 - 100 20 - <25 1 - <3 1 - <3	25068-38-6 14807-96-6 64742-95-6 95-63-6

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.

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Section 4. First aid measures

	<u> </u>	
Most important symptoms/e	ffec	ets, acute and delayed
Potential acute health effe	<u>cts</u>	
Eye contact	1	Causes serious eye irritation.
Inhalation	:	May cause respiratory irritation.
Skin contact	:	Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	:	No known significant effects or critical hazards.
<u>Over-exposure signs/symp</u>	oton	<u>15</u>
Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	:	Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	:	No specific data.
Indication of immediate med	<u>dica</u>	l 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. 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. This material is toxic 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.

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Section 5. Firefighting measures

Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides halogenated compounds 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	:	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. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

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	hi w A D K m oj lių pi	ut on appropriate personal protective equipment (see Section 8). Persons with a istory of skin sensitization problems should not be employed in any process in hich this product is used. Do not get in eyes or on skin or clothing. Do not ingest. void breathing vapour or mist. Avoid release to the environment. Use only with dequate ventilation. Wear appropriate respirator when ventilation is inadequate. o not enter storage areas and confined spaces unless adequately ventilated. eep in the original container or an approved alternative made from a compatible naterial, kept tightly closed when not in use. Store and use away from heat, sparks, pen flame or any other ignition source. Use explosion-proof electrical (ventilating, ghting and material handling) equipment. Use only non-sparking tools. Take recautionary measures against electrostatic discharges. Empty containers retain roduct residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	ha ea ea	ating, drinking and smoking should be prohibited in areas where this material is andled, stored and processed. Workers should wash hands and face before ating, drinking and smoking. Remove contaminated clothing and protective quipment before entering eating areas. See also Section 8 for additional formation on hygiene measures.
Conditions for safe storage, including any incompatibilities	a in lo co oj st	tore between the following temperatures: 0 to 35°C (32 to 95°F). Store in coordance with local regulations. Store in a segregated and approved area. Store original container protected from direct sunlight in a dry, cool and well-ventilated rea, away from incompatible materials (see Section 10) and food and drink. Store ocked up. Eliminate all ignition sources. Separate from oxidising materials. Keep ontainer tightly closed and sealed until ready for use. Containers that have been pened must be carefully resealed and kept upright to prevent leakage. Do not tore in unlabelled containers. Use appropriate containment to avoid environmental pontamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Alc , not containing asbestiform fibres	Workplace Safety and Health Act (Singapore, 2/2006)
1,2,4-trimethylbenzene	PEL (long term) 8 hours: 2 mg/m ³ . Workplace Safety and Health Act
	(Singapore, 2/2006) [Trimethyl benzene]
	PEL (long term) 8 hours: 25 ppm. PEL (long term) 8 hours: 123 mg/m³.

procedures

Recommended monitoring : 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.

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Section 8. Exposure controls/personal protection

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 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 measure	ures	
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	:	Chemical splash goggles.
Skin protection		
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	1	butyl rubber
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
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	:	Liquid.			
Colour	:	Grey.			
Odour	:	Characteristic.			
рН	:	insoluble in water.			
Boiling point	:	>37.78°C (>100°F)			
Flash point	:	Closed cup: 47°C (116.6°F)			
Evaporation rate	:	Not available.			
Flammability (solid, gas)	:	liquid			
Vapour pressure	:	Not available.			
Vapour density	:				
Relative density	1	1.43			
Solubility(ies)		Media Result			
Solubility(les)	1	cold water Not soluble			
Auto-ignition temperature	:	Not available.			
Viscosity	:				

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 halogenated compounds metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
A-(epichlorhydrin); epoxy resin	LD50 Dermal	Rabbit	>2 g/kg	-
Tesin	LD50 Oral	Rat	>2 g/kg	_
Solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
5	LD50 Oral	Rat	8400 mg/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapour LD50 Oral	Rat Rat	18000 mg/m³ 5 g/kg	4 hours -

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
reaction product: bisphenol- A-(epichlorhydrin); epoxy resin	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Moderate irritant Skin - Moderate irritant	Rabbit Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-

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
A-(epichlorhydrin); epoxy resin	- skin	Mouse	Sensitising
Conclusion/Summary			
Skin :	There are no dat	a available on the mixture itself.	
Respiratory :	There are no dat	a available on the mixture itself.	
Mutagenicity			
Conclusion/Summary	: There are no da	ta available on the mixture itself.	
Carcinogenicity			
Conclusion/Summary	: There are no da	ta available on the mixture itself.	
Reproductive toxicity			
Conclusion/Summary	: There are no da	ta available on the mixture itself.	
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Section 11. Toxicological information

Teratogenicity

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

Specific target organ toxicity (single exposure)

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

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1

Information on likely routes : Not available. of exposure Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes skin irritation. Defatting to the skin. 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	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.

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

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Section 11. Toxicological information

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	<u>ects</u>
General	 Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: 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
halation (vapours)	173.57 mg/l
Inhalation (dusts and mists)	14.46 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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<u>Toxicity</u>			
Product/ingredient name	Result	Species	Exposure
reaction product: bisphenol- A-(epichlorhydrin); epoxy resin	Chronic NOEC 0.3 mg/l	Daphnia	21 days
Solvent naphtha (petroleum), light aromatic	Acute LC50 8.2 mg/l	Fish	96 hours
Conclusion/Summary	: There are no data available of	on the mixture itself.	·

Persistence/degradability

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Section 12. Ecological information

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Product/ingredient name	Test	Result		Dose	Inoculum
A-(epichlorhydrin); epoxy resin	OECD 301F	5 % - 28 days		-	-
Conclusion/Summary : There are no data available on the mixture itself.					
Product/ingredient name	Aquatic half-life		Photolysis	S	Biodegradability
reaction product: bisphenol-	-		-		Not readily

Bioaccumulative potential

A-(epichlorhydrin); epoxy

resin

Product/ingredient name	LogPow	BCF	Potential
A-(epichlorhydrin); epoxy resin	2.64 to 3.78	31	Low
1,2,4-trimethylbenzene	3.63	120.23	Low

Mobility in soil

Soil/water partition	: Not available.
coefficient (Koc)	

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	III	III
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(reaction product: bisphenol-A- (epichlorhydrin); epoxy resin)	Not applicable.

Additional information

UN	: None identified.
IMDG	: The marine pollutant mark is not required when transported in sizes of \leq 5 L or \leq 5 kg.
ΙΑΤΑ	: The environmentally hazardous substance mark may appear if required by other transportation regulations.

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.

Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 4 December 2024
Date of previous issue	: 8/22/2024
Version	: 4.03
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 = Iogarithm 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) 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.