SAFETY DATA SHEET

AMERCOAT 90 GRAY N7 NUCLEAR RESIN



Date of issue 4 December 2019

Version 10

1. Product and company identification

Product name : AMERCOAT 90 GRAY N7 NUCLEAR RESIN

Product code : 00334919
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications, Used by spraying.

Use of the substance/

mixture

: Coating.

Uses advised against

: Not applicable.

Supplier's details : PPG PMC Japan Co., Ltd.

8F, Shintetsu Bldg., 1-1, Daikaidori 1-chome, Kobe 652-0803

Tel: +81 78 574 2777 Fax: +81 78 576 0035

Emergency telephone

number

: 078 574 2777

2. Hazards identification

GHS Classification : FLAMMABLE LIQUIDS - Category 3

SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1A

TOXIC TO REPRODUCTION (Fertility) - Category 1A TOXIC TO REPRODUCTION (Unborn child) - Category 1A

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (central nervous

system (CNS), kidneys, liver, respiratory system) - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system,

respiratory system) - Category 1

AQUATIC HAZARD (ACUTE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms









Signal word : Danger

Japan Page: 1/15

2. Hazards identification

Hazard statements

: Flammable liquid and vapor.

Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction.

May cause cancer.

May damage fertility or the unborn child.

Causes damage to organs. (central nervous system (CNS), kidneys, liver, respiratory system)

May cause drowsiness or dizziness.

Causes damage to organs through prolonged or repeated exposure. (nervous system, respiratory system)

Toxic to aquatic life with long lasting effects.

Precautionary statements Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

Collect spillage. Get medical attention if you feel unwell. IF exposed or concerned: Call a POISON CENTER or physician. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical 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 attention.

Storage Disposal

- : Store locked up. Store in a well-ventilated place. Keep cool.
- : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification

: Prolonged or repeated contact may dry skin and cause irritation.

3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

CAS number : Not applicable. **ENCS number** : Not available.

Ingredient name	%	CAS number	ENCS
r alc (containing no asbestos or quartz)	25 - <50	14807-96-6	Not available.
Epoxy resin (MW ≤ 700)	15 - <20	25068-38-6	(7)-1279
Xylene	15 - <20	1330-20-7	3-3; 3-60
titanium dioxide (nanoparticle)	10 - <12.5	13463-67-7	1-558
Propylene glycol monomethyl ether	5 - <7	107-98-2	2-404; 7-97
Ethylbenzene	3 - <5	100-41-4	3-28; 3-60
2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane	0.5 - <1	3388-04-3	3-2647
Ethanol	0.2 - < 0.5	64-17-5	2-202
	1		1

Japan Page: 2/15

Product code 00334919 Date of issue 4 December 2019 Version 10

Product name AMERCOAT 90 GRAY N7 NUCLEAR RESIN

3. Composition/information on ingredients

Silica (silicon dioxide containing crystalline and	0.1 - <0.2	7631-86-9	1-548
amorphous)			

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.

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 recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this 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 : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness.

Skin contact: Causes damage to organs following a single exposure in contact with skin. Causes

skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : Causes damage to organs following a single exposure if swallowed. Can cause

central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation redness dryness cracking

reduced fetal weight increase in fetal deaths skeletal malformations

Japan Page: 3/15

Date of issue 4 December 2019 Version 10

Product name AMERCOAT 90 GRAY N7 NUCLEAR RESIN

4. First aid measures

Ingestion

: Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

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. 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)

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO2, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

Specific hazards arising from the chemical

: Flammable liquid and vapor. 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.

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.

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

> Japan Page: 4/15

6. Accidental release measures

For emergency responders: If specialized 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 nonemergency personnel".

Environmental precautions: Avoid dispersal of spilled 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 materials 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 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 noncombustible, 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 spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 vapor 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage: Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

> Japan Page: 5/15

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
√alc (containing no asbestos or quartz)	Japan Society for Occupational Health
	(Japan, 5/2018).
	OEL-M: 0.5 mg/m ³ 8 hours. Form:
	Respirable dust
	OEL-M: 2 mg/m³ 8 hours. Form: Total dust
Xylene	ISHL (Japan, 2/2019).
	TWA: 50 ppm 8 hours.
	Japan Society for Occupational Health
	(Japan, 5/2018).
	OEL-M: 50 ppm 8 hours.
	OEL-M: 217 mg/m ³ 8 hours.
titanium dioxide (nanoparticle)	Japan Society for Occupational Health
	(Japan, 5/2018).
	OEL-M: 1 mg/m³ 8 hours. Form: Respirable
	dust
	OEL-M: 4 mg/m³ 8 hours. Form: Total dust
	OEL-M: 0.3 mg/m³, (as Ti) 8 hours. Form:
	nanoparticle
Ethylbenzene	Japan Society for Occupational Health
	(Japan, 5/2018).
	OEL-M: 217 mg/m ³ 8 hours.
	OEL-M: 50 ppm 8 hours.
	ISHL (Japan, 2/2019).
	TWA: 20 ppm 8 hours.

procedures

Recommended monitoring: 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

: 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, vapor 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 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 protection **Skin protection**

: Chemical splash goggles.

Japan Page: 6/15 Product code 00334919 Date of issue 4 December 2019 Version 10

Product name AMERCOAT 90 GRAY N7 NUCLEAR RESIN

8. Exposure controls/personal 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

: 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.

9. Physical and chemical properties

Appearance

Physical state : Liquid.
Color : Gray.

Odor : Characteristic.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 27.22°C (81°F)
Evaporation rate : 0.63 (butyl acetate = 1)

Vapor pressure : 1.1 kPa (8.5 mm Hg) [room temperature]

Relative density : 1.48

Solubility : Insoluble in the following materials: cold water.

Viscosity : Not Applicable

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:

oxidizing agents, strong alkalis, strong acids.

Japan Page: 7/15

10. Stability and reactivity

Hazardous decomposition products

: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ppoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>2 g/kg	-
Xylene	LD50 Dermal	Rabbit	>1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
(nanoparticle)				
,	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Propylene glycol	LD50 Dermal	Rabbit	13 g/kg	-
monomethyl ether				
	LD50 Oral	Rat	5.2 g/kg	-
Ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
2-(3,4-epoxycyclohexyl) ethyltrimethoxysilane	LD50 Dermal	Rabbit	6.7 g/kg	-
	LD50 Oral	Rat	13 g/kg	-
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m ³	4 hours
	LD50 Oral	Rat	7 g/kg	-
Silica (silicon dioxide	LD50 Dermal	Rabbit	>5000 mg/kg	-
containing crystalline and				
amorphous)				
, ,	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Epoxy resin (MW ≤ 700) Xylene	Skin - Mild irritant Eyes - Mild irritant Skin - Moderate irritant	Rabbit Rabbit Rabbit	-	- - 24 hours 500	- - -
				mg	

Sensitization

3	Route of exposure	Species	Result
Epoxy resin (MW ≤ 700)	skin	Mouse	Sensitizing

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Japan Page: 8/15

11. Toxicological information

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
ralc (containing no asbestos or quartz) Xylene	Category 1 Category 1	Not determined Not determined	respiratory system central nervous system (CNS), kidneys, liver and respiratory system
	Category 3	Not applicable.	Narcotic effects
Propylene glycol monomethyl ether	Category 3	Not applicable.	Narcotic effects
Ethylbenzene	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Ethanol	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Silica (silicon dioxide containing crystalline and amorphous)	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
▼alc (containing no asbestos or quartz) Xylene	Category 1 Category 1	Not determined Not determined	respiratory system nervous system and respiratory system
titanium dioxide (nanoparticle) Ethylbenzene Ethanol	Category 1 Category 2 Category 1 Category 2	Not determined Not determined Not determined Not determined	respiratory system hearing organs liver central nervous system (CNS)
Silica (silicon dioxide containing crystalline and amorphous)	Category 1	Not determined	immune system, kidneys and respiratory system

Aspiration hazard

Name	Result
	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

: Not available.

Potential acute health effects

Eye contact

: Causes serious eye irritation.

Inhalation

: Can cause central nervous system (CNS) depression. May cause drowsiness or

Skin contact

: Causes damage to organs following a single exposure in contact with skin. Causes

skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion

: Causes damage to organs following a single exposure if swallowed. Can cause

central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Japan Page: 9/15

Date of issue 4 December 2019 Version 10

Product name AMERCOAT 90 GRAY N7 NUCLEAR RESIN

11. Toxicological information

Eye contact: Adverse symptoms may include the following:

pain or irritation watering

Inhalation : Adverse symptoms may include the following:

nausea or vomiting

headache

redness

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation redness dryness cracking

reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : 1

effects

: Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure. Prolonged or

repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: May damage the unborn child.

Developmental effects: No known significant effects or critical hazards.

Fertility effects : May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Japan Page: 10/15

11. Toxicological information

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
MERCOAT 90 GRAY N7 NUCLEAR RESIN	13782.1	4359	N/A	35.9	N/A
Epoxy resin (MW ≤ 700)	2500	2500	N/A	N/A	N/A
Xylene	4300	1100	N/A	11	N/A
Propylene glycol monomethyl ether	5200	13000	N/A	11	N/A
Ethylbenzene	3500	17800	N/A	17.8	N/A
2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane	13000	6700	N/A	N/A	N/A
Ethanol	7000	N/A	N/A	124.7	N/A

Other information

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/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. Wash thoroughly after handling. Emits toxic fumes when heated.

12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
poxy resin (MW ≤ 700)	Acute LC50 1.8 mg/l	Daphnia	48 hours
,	Chronic NOEC 0.3 mg/l	Daphnia	21 days
titanium dioxide (nanoparticle)	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Propylene glycol monomethyl ether	Acute LC50 23300 mg/l	Daphnia	48 hours
•	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
Ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish	96 hours
Ethanol	Acute EC50 7640 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Silica (silicon dioxide containing crystalline and amorphous)	Acute LC50 >10000 mg/l	Fish	96 hours

Persistence/degradability

Product/ingredient name	Test	Result		Dose		Inoculum
Epoxy resin (MW ≤ 700)	OECD 301F	5 % - 28 days				-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
Epoxy resin (MW ≤ 700) Xylene Ethylbenzene Ethanol	- - - -		-		Not rea Readily Readily Readily	, ,

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Epoxy resin (MW ≤ 700)	3	31	low
Xylene	3.16	7.4 to 18.5	low
Ethylbenzene	3.15	79.43	low
Ethanol	-0.31	-	low

Japan Page: 11/15

Product code 00334919 Date of issue 4 December 2019 Version 10

Product name AMERCOAT 90 GRAY N7 NUCLEAR RESIN

12. Ecological information

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

: Not available. **Mobility**

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized 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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	UN	IMDG	IATA
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	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

UN : None identified. **IMDG** : None identified. : None identified. **IATA**

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.

Page: 12/15 Japan

15. Regulatory information

Fire Service Law

Category	Substance name/Type	Danger category	Signal word	Designated quantity
Category IV	Class II petroleums	III	Flammable - Keep Fire Away	1000 L

Pollutant Release and Transfer Registers (PRTR)

Ingredient name	%	Status	Reference number
wlene	17.254		80
ethylbenzene	3.0598		53

ISHL

Use of specified chemical substances

Ingredient name	%		Reference number
Ethyl benzene		Group-2 Substances under Supervision	3-3

Label requirements

Ingredient name	%	Status	Reference number
▼ylene	≥10 - ≤25	Listed	136
Ethylbenzene	≤5.0	Listed	70
Crystalline silica	≤0.30	Listed	165-2
Propylene glycol monomethyl ether; 2-Propanol, 1-methoxy-	≤9.6	Listed	496
Titanium(ÍV) oxide Ethanol	≥10 - ≤25 <1.0	Listed Listed	191 61

Chemicals requiring notification

Ingredient name	%	Status	Reference number
Kylene Ethylbenzene Crystalline silica Propylene glycol monomethyl ether; 2-Propanol, 1-methoxy- Titanium(IV) oxide Ethanol	≥10 - ≤25 ≤5.0 ≤0.30 ≤9.6 ≥10 - ≤25 <1.0	Listed Listed Listed Listed Listed Listed Listed	136 70 165-2 496 191 61

Carcinogen

None of the components are listed.

Mutagen

None of the components are listed.

Corrosive liquid : Not listed

Occupational Safety and

Health Law

: Flammable liquid Class 3

Prevention of Tetraalkyl

Lead Poisoning

: Not listed

Japan Page: 13/15

Product code 00334919 Date of issue 4 December 2019 Version 10

Product name AMERCOAT 90 GRAY N7 NUCLEAR RESIN

15. Regulatory information

Harmful Substances Subject to Obtaining

: Not listed

Permission for Manufacturing

Harmful Substances,

: Not listed

Prohibited for Manufacturing

Dangerous Substances : Inflammable **Lead regulation** : Not listed **Organic solvents** : Class 2

poisoning prevention

Poisonous and Deleterious Substances

None of the components are listed.

Chemical Substances Control Law (CSCL)

Ingredient name	%		Reference number
▼ylene	17.254	Priority assessment	125
Ethylbenzene	3.0598	Priority assessment	50

High Pressure Gas Control

: Not available.

Law

Explosives Control Law

None of the components are listed.

Law Concerning Prevention : Not available.

of Pollution of the Ocean and Maritime Disaster

Maritime Safety Law

Notification Regulating Transportation of Dangerous Materials by Sea

None of the components are listed.

Container class

None of the components are listed.

JSOH Carcinogen : Group 2B **List of Specially Controlled** : Not listed

Industrial Waste

Japan inventory : All components are listed or exempted.

Road law : Not available.

16. Other information

History

Date of issue/Date of

: 4 December 2019

revision

Date of previous issue : 9/6/2019 **Version** : 10 Prepared by : EHS

Japan Page: 14/15

Date of issue 4 December 2019 Version 10

Product name AMERCOAT 90 GRAY N7 NUCLEAR RESIN

16. Other information

Key to abbreviations

: ADN = European Provisions concerning the International Carriage of Dangerous

Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

 ${\sf MARPOL = International\ Convention\ for\ the\ Prevention\ of\ Pollution\ From\ Ships,\ 1973}$

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

RID = The Regulations concerning the International Carriage of Dangerous Goods by

Rail

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.

Japan Page: 15/15