SAFETY DATA SHEET



SIGMASHIELD PRIME BASE REDBROWN



Date of issue 19 July 2021

Version 1.01

1. Product and company identification

Product name : SIGMASHIELD PRIME BASE REDBROWN

Product code : 00445422 Product type : Liquid.

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

Product use : Professional 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
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2

TOXIC TO REPRODUCTION - Category 1B

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

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

GHS label elements

Hazard pictograms :











Signal word : Danger

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Product name SIGMASHIELD PRIME BASE REDBROWN

2. Hazards identification

Hazard statements

: Flammable liquid and vapor.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage.

May cause drowsiness or dizziness.

Suspected of causing cancer.

May damage fertility or the unborn child.

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

respiratory system)

Causes damage to organs through prolonged or repeated exposure. (lungs,

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, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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 thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

: Collect spillage. IF exposed or concerned: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal

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. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C (140F).

3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

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

Ingredient name	%	CAS number	CSCL
Talc (containing no asbestos or quartz)	20 - <25	14807-96-6	Not available.
crystalline silica, respirable powder (>10 microns)	20 - <25	14808-60-7	1-548
Epoxy Resin (700 <mw<=1100)< td=""><td>15 - <20</td><td>25036-25-3</td><td>Not available.</td></mw<=1100)<>	15 - <20	25036-25-3	Not available.
Xylene	10 - <12.5	1330-20-7	3-3; 3-60
Aluminium oxide	5 - <7	1344-28-1	1-23
Solvent naphtha (petroleum), heavy arom	3 - <5	64742-94-5	Not available.
Diiron trioxide	3 - <5	1309-37-1	1-357; 5-5188
isobutyl alcohol	3 - <5	78-83-1	2-3049
ethyl benzene	2 - <3	100-41-4	3-28; 3-60
aluminium metal	1 - <2	7429-90-5	Not available.
Propylene glycol monomethyl ether	1 - <2	107-98-2	2-404; 7-97

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Product name SIGMASHIELD PRIME BASE REDBROWN

3. Composition/information on ingredients

Urea, polymer with formaldehyde, isobutylated	1 - <2	68002-18-6	Not available.
Naphthalene	0.2 - < 0.5	91-20-3	4-311

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: Check for and remove any contact lenses. Immediately flush eyes with running

water for at least 15 minutes, keeping eyelids open. Seek immediate medical

attention.

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 damage.

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 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:

pain or irritation

redness dryness cracking

blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations

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Product name SIGMASHIELD PRIME BASE REDBROWN

4. First aid measures

Ingestion

: Adverse symptoms may include the following:

stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

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

Notes to physician

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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

y

: 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 nitrogen oxides metal oxide/oxides Formaldehyde.

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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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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 non-emergency 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). 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. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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 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.

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8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Talc (containing no asbestos or quartz)	Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 0.5 mg/m³ 8 hours. Form: Respirable dust (Class 1 Dust) OEL-M: 2 mg/m³ 8 hours. Form: Total dust (Class 1 Dust)
crystalline silica, respirable powder (>10 microns)	Japan Society for Occupational Health (Japan, 5/2020).
Xylene	OEL-C: 0.03 mg/m³ Form: Respirable dust ISHL (Japan, 6/2020). TWA: 50 ppm 8 hours. Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 50 ppm 8 hours.
Aluminium oxide	OEL-M: 217 mg/m³ 8 hours. Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 0.5 mg/m³ 8 hours. Form: Respirable dust (Class 1 Dust) OEL-M: 2 mg/m³ 8 hours. Form: Total dust (Class 1 Dust)
Diiron trioxide	Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 1 mg/m³ 8 hours. Form: Respirable dust (Class 2 Dust) OEL-M: 4 mg/m³ 8 hours. Form: Total dust (Class 2 Dust)
isobutyl alcohol	Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 150 mg/m³ 8 hours. OEL-M: 50 ppm 8 hours. ISHL (Japan, 6/2020). TWA: 50 ppm 8 hours.
ethyl benzene	Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 217 mg/m³ 8 hours. OEL-M: 50 ppm 8 hours. ISHL (Japan, 6/2020). TWA: 20 ppm 8 hours.
aluminium metal	Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 0.5 mg/m³ 8 hours. Form: Respirable dust (Class 1 Dust) OEL-M: 2 mg/m³ 8 hours. Form: Total dust (Class 1 Dust)
Naphthalene	ISHL (Japan, 6/2020). TWA: 10 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.

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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, 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 and face shield.

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.

Odor : Characteristic.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 26°C (78.8°F)

Relative density : 1.21

Solubility : Insoluble in the following materials: cold water.

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Product name SIGMASHIELD PRIME BASE REDBROWN

9. Physical and chemical properties

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.

Hazardous decomposition

products

: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides Formaldehyde. metal oxide/oxides

11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Epoxy Resin (700 <mw <="1100)</td"><td>LD50 Dermal</td><td>Rat</td><td>>2000 mg/kg</td><td>-</td></mw>	LD50 Dermal	Rat	>2000 mg/kg	-
,	LD50 Oral	Rat	>2000 mg/kg	-
Xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Aluminium oxide	LC50 Inhalation Dusts and mists	Rat	7.6 mg/l	4 hours
	LD50 Oral	Rat	>15900 mg/kg	-
Solvent naphtha (petroleum), heavy arom	LC50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
	LD50 Oral	Rat	>5 g/kg	-
Diiron trioxide	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Oral	Rat	10 g/kg	-
isobutyl alcohol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
ethyl benzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
aluminium metal	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Oral	Rat	>15900 mg/kg	-
Propylene glycol monomethyl ether	LC50 Inhalation Vapor	Rat	>7000 ppm	6 hours
,	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
Urea, polymer with formaldehyde, isobutylated	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-
Naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
,	LD50 Oral	Rat	490 mg/kg	-

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11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Talc (containing no asbestos or quartz)	Category 1	-	respiratory system
Xylene	Category 1	-	central nervous system (CNS),
			kidneys, liver,
	Category 3		respiratory system Narcotic effects
Aluminium oxide	Category 3	-	Respiratory tract irritation
Solvent naphtha (petroleum), heavy arom	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Diiron trioxide	Category 1	-	respiratory system
isobutyl alcohol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
ethyl benzene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
aluminium metal	Category 1	-	respiratory system
Propylene glycol monomethyl ether	Category 3	-	Narcotic effects
Naphthalene	Category 1	-	blood, eyes, respiratory tract

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Talc (containing no asbestos or quartz)	Category 1	-	respiratory system
Xylene	Category 1	-	nervous system, respiratory system
Aluminium oxide	Category 1	inhalation	lungs
Diiron trioxide	Category 1	-	respiratory system
ethyl benzene	Category 2	-	hearing organs
aluminium metal	Category 1	-	respiratory system
Naphthalene	Category 1	-	blood, eyes, respiratory system

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11. Toxicological information

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 damage.

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.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain 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:

pain or irritation

redness dryness cracking

blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

stomach pains 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

: Not available.

effects

Potential delayed effects

: Not available.

Long term exposure

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11. Toxicological information

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 : Suspected of causing cancer. Risk of cancer depends on duration and level of

exposure.

Mutagenicity: No known significant effects or critical hazards.

Reproductive toxicity: May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
MGMASHIELD PRIME BASE REDBROWN	13774.1	4614.2	N/A	48	N/A
Epoxy Resin (700 <mw<=1100)< td=""><td>2500</td><td>2500</td><td>N/A</td><td>N/A</td><td>N/A</td></mw<=1100)<>	2500	2500	N/A	N/A	N/A
Xylene	4300	1700	N/A	11	N/A
Aluminium oxide	N/A	N/A	N/A	N/A	7.6
Diiron trioxide	10000	N/A	N/A	N/A	N/A
isobutyl alcohol	2830	2460	N/A	11	N/A
ethyl benzene	3500	17800	N/A	17.8	N/A
Propylene glycol monomethyl ether	5200	13000	N/A	11	N/A
Naphthalene	490	N/A	N/A	N/A	N/A

Other information

Prolonged or repeated contact may dry skin and cause irritation. 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 vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C (140F). Avoid contact with skin and clothing.

12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Aluminium oxide	Acute LC50 >100 mg/l	Fish	96 hours
Solvent naphtha (petroleum), heavy arom	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
Diiron trioxide	Acute EC50 >100 mg/l	Daphnia	48 hours
isobutyl alcohol	Acute EC50 1100 mg/l	Daphnia	48 hours
ethyl benzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
,	Acute LC50 150 to 200 mg/l Fresh water	Fish	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	_
Propylene glycol monomethyl ether	Acute LC50 23300 mg/l	Daphnia	48 hours
,	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours

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12. Ecological information

Persistence/degradability

Product/ingredient name	Test	Result		Dose		Inoculum
ethyl benzene	-	79 % - Readily - 10 days		-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
Xylene ethyl benzene	-		-		Readily Readily	

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Xylene	3.12	7.4 to 18.5	low
Solvent naphtha (petroleum),	2.8 to 6.5	-	high
heavy arom			
isobutyl alcohol	1	-	low
ethyl benzene	3.6	79.43	low
Propylene glycol monomethyl ether	<1	-	low
Naphthalene	3.4	85.11	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility

: Not available.

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.

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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.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

15. Regulatory information

Fire Service Law

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

Pollutant Release and Transfer Registers (PRTR)

Ingredient name	%	Status	Reference number
Xylene	12.199	Class 1	80
Ethylbenzene	2.1963	Class 1	53

ISHL

Use of specified chemical substances

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

Substances requiring labelling

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15. Regulatory information

Ingredient name	%	Status	Reference number
Crystalline silica	≥10 - ≤25	Listed	165-2
Xylene	≥10 - ≤25	Listed	136
Aluminium oxide	≤6.5	Listed	189
Iron oxide; Diiron(III) trioxide	≤5.0	Listed	192
Butanol	≤5.0	Listed	477
Ethylbenzene	≤2.8	Listed	70
Aluminium and its water-soluble salts	≤3.0	Listed	37
Propylene glycol monomethyl ether; 2-Propanol, 1-methoxy-	≤3.0	Listed	496

Chemicals requiring notification

Ingredient name	%	Status	Reference number
Crystalline silica	≥10 - ≤25	Listed	165-2
Xylene	≥10 - ≤25	Listed	136
Aluminium oxide	≤6.5	Listed	189
Iron oxide; Diiron(III) trioxide	≤5.0	Listed	192
Butanol	≤5.0	Listed	477
Ethylbenzene	≤2.8	Listed	70
Aluminium and its water-soluble salts	≤3.0	Listed	37
Propylene glycol monomethyl ether; 2-Propanol, 1-methoxy-	≤3.0	Listed	496
Naphthalene	<1.0	Listed	408

Carcinogen

Ingredient name	%		Reference number
ethylbenzene	≤2.8	Listed	-

Mutagen

None of the components are listed.

Corrosive liquid : Not listed

Occupational Safety and

Health Law

: Flammable liquid Class 3

Regulations on the Prevention of Tetraalkyl

Lead Poisoning

: Not listed

Harmful Substances

Subject to Obtaining Permission for Manufacturing

: Not listed

Harmful Substances,

Prohibited for Manufacturing : Not listed

Dangerous Substances: InflammableLead regulation: Not listedOrganic solvents: Class 2

poisoning prevention

Poisonous and Deleterious Substances

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15. Regulatory information

None of the components are listed.

Chemical Substances Control Law (CSCL)

Ingredient name	%	Status	Reference number
Xylene	12.199	Priority assessment	125
Ethylbenzene	2.1963	Priority assessment	50
Toluene	0.09475	Priority assessment	46
Formaldehyde	0.0198	Priority assessment	25
Benzene	0.0021586	Priority assessment	45
Methanol	0.00046964	Priority assessment	90

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 1 List of Specially Controlled : Not listed

Industrial Waste

Japan inventory : At least one component is not listed.

Road law : Not available.

16. Other information

History

Date of issue/Date of

revision

: 19 July 2021

Date of previous issue : 7/15/2021 **Version** : 1.01 **Prepared by** : EHS

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

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

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Product name SIGMASHIELD PRIME BASE REDBROWN

16. Other information

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.

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