SAFETY DATA SHEET

SIGMACOVER 300 BASE BROWN

Date of issue 26 September 2021

Version 1.02

1. Product and company identification

Product name : SIGMACOVER 300 BASE BROWN

Product code : 00445459

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
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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
GERM CELL MUTAGENICITY - Category 1B
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
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

2. Hazards identification

Hazard statements : Flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause genetic defects.
May cause 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. (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. 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 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. If eye irritation persists: Get medical advice or attention.

Storage : Store locked up.

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.

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
crystalline silica, respirable powder (>10 microns)	25 - <50	14808-60-7	1-548
Talc (containing no asbestos or quartz)	15 - <20	14807-96-6	Not available.
Xylene	12.5 - <15	1330-20-7	3-3; 3-60
Coal tar pitch (high-temp.)/coal tar pitch	10 - <12.5	65996-93-2	9-1744
polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only)	5 - <7	25068-38-6	7-1283
Epoxy Resin (700<MW<=1100)	3 - <5	25036-25-3	Not available.
Propylene glycol monomethyl ether	1 - <2	107-98-2	2-404; 7-97
Creosote oil	1 - <2	90640-84-9	9-1735
ethyl benzene	1 - <2	100-41-4	3-28; 3-60
aluminium metal	1 - <2	7429-90-5	Not available.
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and	1 - <2	220926-97-6	Not available.

3. Composition/information on ingredients

hexamethylenediamine			
Distillates (coal tar), heavy oils	0.5 - <1	90640-86-1	Not available.
Solvent naphtha (petroleum), heavy arom	0.5 - <1	64742-94-5	Not available.
Phenanthrene	0.5 - <1	85-01-8	4-635
pyrene	0.5 - <1	129-00-0	4-782
Naphthalene	0.5 - <1	91-20-3	4-311
benz(e)acephenanthrylene	0.2 - <0.5	205-99-2	Not available.
Benzo[k]fluoranthene	0.2 - <0.5	207-08-9	Not available.
isobutyl alcohol	0.2 - <0.5	78-83-1	2-3049
Benz[a]anthracene	0.2 - <0.5	56-55-3	Not available.
Chrycene	0.2 - <0.5	218-01-9	Not available.
Benzo[a]pyrene	0.1 - <0.2	50-32-8	Not available.
Benzo[e]pyrene	0.1 - <0.2	192-97-2	Not available.
biphenyl	0.1 - <0.2	92-52-4	4-13

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.
In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation or blistering occurs after contact.

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 : No known significant effects or critical hazards.

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.

Over-exposure signs/symptoms

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

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

4. First aid measures

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

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 : 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 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
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.

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 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 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.

7. Handling and storage

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.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
crystalline silica, respirable powder (>10 microns)	**Japan Society for Occupational Health (Japan, 5/2020).** OEL-C: 0.03 mg/m³ Form: Respirable dust
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)
Xylene	**ISHL (Japan, 6/2020).** TWA: 50 ppm 8 hours. **Japan Society for Occupational Health (Japan, 5/2020).** OEL-M: 50 ppm 8 hours. OEL-M: 217 mg/m³ 8 hours.
Coal tar pitch (high-temp.)/coal tar pitch	**ISHL (Japan, 6/2020).** TWA: 0.2 mg/m³, (as benzene solublity) 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)
Phenanthrene	**ISHL (Japan, 6/2020).** TWA: 0.2 mg/m³, (as benzene solublity) 8 hours.
pyrene	**ISHL (Japan, 6/2020).** TWA: 0.2 mg/m³, (as benzene solublity) 8 hours.
Naphthalene	**ISHL (Japan, 6/2020).** TWA: 10 ppm 8 hours.
isobutyl alcohol	**Japan Society for Occupational Health (Japan, 5/2020).**

8. Exposure controls/personal protection

Chrycene	OEL-M: 150 mg/m³ 8 hours. OEL-M: 50 ppm 8 hours. **ISHL (Japan, 6/2020).** TWA: 50 ppm 8 hours. **ISHL (Japan, 6/2020).** TWA: 0.2 mg/m³, (as benzene solublity) 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : 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 : 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 : 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.

8. Exposure controls/personal protection

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 : Brown.

Odor : Aromatic.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 39°C (102.2°F)

Relative density : 1.29

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.

Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds metal oxide/ oxides

11. Toxicological information

Information on toxicological effects

Acute toxicity

11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Coal tar pitch (high-temp.)/ coal tar pitch	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3300 mg/kg	-
polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>2 g/kg	-
Epoxy Resin (700<MW <=1100)	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 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	-
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	-
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	LC50 Inhalation Dusts and mists	Rat	3.56 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 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	-
Phenanthrene	LD50 Oral	Rat	1.8 g/kg	-
pyrene	LC50 Inhalation Dusts and mists	Rat	170 mg/m³	4 hours
	LD50 Oral	Rat	2.7 g/kg	-
Naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/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	-
biphenyl	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	2140 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only)	Skin - Moderate irritant	Rabbit	-	-	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 Ul	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-

11. Toxicological information

Sensitization

Product/ingredient name	Route of exposure	Species	Result
polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only)	skin	Mouse	Sensitizing

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, respiratory system
	Category 3		Narcotic effects
Coal tar pitch (high-temp.)/coal tar pitch	Category 3	-	Respiratory tract irritation
Propylene glycol monomethyl ether	Category 3	-	Narcotic effects
ethyl benzene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
aluminium metal	Category 1	-	respiratory system
Solvent naphtha (petroleum), heavy arom	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Naphthalene	Category 1	-	blood, eyes, respiratory tract
isobutyl alcohol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

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
Coal tar pitch (high-temp.)/coal tar pitch	Category 1	-	nervous system
ethyl benzene	Category 2	-	hearing organs
aluminium metal	Category 1	-	respiratory system
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	Category 2	inhalation	lungs

11. Toxicological information

pyrene	Category 2	-	-
Naphthalene	Category 1	-	blood, eyes, respiratory system
Benzo[a]pyrene	Category 2	-	bone marrow
biphenyl	Category 1	-	liver, nervous system, respiratory system
	Category 2		kidneys

Aspiration hazard

Name	Result
Xylene	ASPIRATION HAZARD - Category 1
ethyl benzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

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.

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:
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 effects : Not available.

Potential delayed effects : Not available.

Long term exposure

11. Toxicological information

Potential immediate effects : Not available.

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 : May cause genetic defects.

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)
SIGMACOVER 300 BASE BROWN	47027.8	6077.8	N/A	65	319
Xylene	4300	1700	N/A	11	N/A
Coal tar pitch (high-temp.)/coal tar pitch	3300	N/A	N/A	N/A	N/A
polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only)	2500	2500	N/A	N/A	N/A
Epoxy Resin (700<MW<=1100)	2500	2500	N/A	N/A	N/A
Propylene glycol monomethyl ether	5200	13000	N/A	11	N/A
ethyl benzene	3500	17800	N/A	17.8	N/A
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	2500	2500	N/A	N/A	3.56
Phenanthrene	1800	N/A	N/A	N/A	N/A
pyrene	2700	N/A	N/A	N/A	0.17
Naphthalene	490	N/A	N/A	N/A	N/A
isobutyl alcohol	2830	2460	N/A	11	N/A
biphenyl	2140	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. Avoid contact with skin and clothing.

12. Ecological information

Toxicity

12. Ecological information

Product/ingredient name	Result	Species	Exposure
polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only)	Chronic NOEC 0.3 mg/l	Daphnia	21 days
Propylene glycol monomethyl ether	Acute LC50 23300 mg/l	Daphnia	48 hours
	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
ethyl benzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	Acute EC50 >100 mg/l	Algae - Pseudokirchneriella subcapitata (microalgae)	72 hours
	Acute EC50 >100 mg/l	Daphnia - Daphnia magna (Water flea)	48 hours
	Acute LC50 >100 mg/l	Fish - Oncorhynchus mykiss (rainbow trout)	96 hours
	Chronic NOEC 100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Chronic NOEC ≥50 mg/l	Daphnia - Daphnia magna (Water flea)	21 days
Solvent naphtha (petroleum), heavy arom	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
isobutyl alcohol	Acute EC50 1100 mg/l	Daphnia	48 hours

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only)	OECD 301F	5 % - 28 days	-	-
ethyl benzene	-	79 % - Readily - 10 days	-	-
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	OECD 301D Ready Biodegradability - Closed Bottle Test	9 % - Not readily - 29 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene	-	-	Readily
polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only)	-	-	Not readily
ethyl benzene	-	-	Readily

Bioaccumulative potential

12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene	3.12	7.4 to 18.5	low
Coal tar pitch (high-temp.)/ coal tar pitch	6.04	-	high
polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only)	2.64 to 3.78	31	low
Propylene glycol monomethyl ether	<1	-	low
ethyl benzene	3.6	79.43	low
12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine	>6	-	high
Solvent naphtha (petroleum), heavy arom	2.8 to 6.5	-	high
Phenanthrene	4.46	2511.89	high
pyrene	5.43	1513.56	high
Naphthalene	3.4	85.11	low
benz(e)acephenanthrylene	5.78	-	high
Benzo[k]fluoranthene	6.11	-	high
isobutyl alcohol	1	-	low
Benz[a]anthracene	5.76	257.04	low
Chrycene	5.81	-	high
Benzo[a]pyrene	6.13	-	high
Benzo[e]pyrene	6.44	-	high
biphenyl	4.008	436.52	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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.

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	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(Pitch, coal tar, high-temp., 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 ≤5 L or ≤5 kg.

IATA : 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 to IMO instruments : Not applicable.

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
Xylene	13.729	Class 1	80
Ethylbenzene	1.9254	Class 1	53

ISHL

Use of specified chemical substances

15. Regulatory information

Ingredient name	%	Status	Reference number
Ethyl benzene	≤2.0	Group-2 Substances under Supervision	3-3
Naphthalene	≤0.53	Group-2 Substances under Supervision	-

Substances requiring labelling

Ingredient name	%	Status	Reference number
Crystalline silica	≥25 - ≤50	Listed	165-2
Xylene	≥10 - ≤25	Listed	136
Coal tar	≥10 - ≤25	Listed	174
Propylene glycol monomethyl ether; 2-Propanol, 1-methoxy-	≤2.2	Listed	496
Ethylbenzene	≤2.0	Listed	70
Aluminium and its water-soluble salts	≤3.0	Listed	37
Benzo[e]fluoranthene; Benzo(e)acephenanthrylene	<1.0	Listed	536
Benzo[a]pyrene	≤0.18	Listed	534

Chemicals requiring notification

Ingredient name	%	Status	Reference number
Crystalline silica	≥25 - ≤50	Listed	165-2
Xylene	≥10 - ≤25	Listed	136
Coal tar	≥10 - ≤25	Listed	174
Propylene glycol monomethyl ether; 2-Propanol, 1-methoxy-	≤2.2	Listed	496
Ethylbenzene	≤2.0	Listed	70
Aluminium and its water-soluble salts	≤3.0	Listed	37
Naphthalene	≤0.53	Listed	408
Benzo[e]fluoranthene; Benzo(e)acephenanthrylene	<1.0	Listed	536
Butanol	≤0.30	Listed	477
Benzo[a]anthracene; Benz[a]anthracene	≤0.28	Listed	533
Benzo[a]pyrene	≤0.18	Listed	534
Biphenyl	≤0.12	Listed	465

Carcinogen

Ingredient name	%	Status	Reference number
ethylbenzene	≤2.0	Listed	-
biphenyl	≤0.12	Listed	-

Mutagen

Ingredient name	%	Status	Reference number
bisphenol A type epoxy resin intermediate	≤6.5	Listed	110

Corrosive liquid : Not listed

Occupational Safety and Health Law : Flammable liquid Class 4

Regulations on the Prevention of Tetraalkyl Lead Poisoning : Not listed

15. Regulatory information

Harmful Substances Subject to Obtaining Permission for Manufacturing : Not listed

Harmful Substances, Prohibited for Manufacturing : Not listed

Dangerous Substances : Inflammable

Lead regulation : Not listed

Organic solvents poisoning prevention : Class 2

Poisonous and Deleterious Substances

None of the components are listed.

Chemical Substances Control Law (CSCL)

Ingredient name	%	Status	Reference number
Xylene	13.729	Priority assessment	125
Coal tar pitch	10.146	Priority assessment	163
Polycondensate of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid only); bisphenol A type epoxy resin	6.2	Priority assessment	87
Creosote oil	1.97	Priority assessment	209
Ethylbenzene	1.9254	Priority assessment	50
Coal tar	0.5319	Priority assessment	162
Coal tar	0.5319	Priority assessment	162
Naphthalene	0.5122	Priority assessment	76
Coal tar	0.2364	Priority assessment	162
Toluene	0.05936	Priority assessment	46
Formaldehyde	0.0099	Priority assessment	25
Benzene	0.0019033	Priority assessment	45

High Pressure Gas Control Law : Not available.

Explosives Control Law

None of the components are listed.

Law Concerning Prevention of Pollution of the Ocean and Maritime Disaster : Not available.

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 Industrial Waste : Not listed

Japan inventory : At least one component is not listed.

15. Regulatory information

Road law : Not available.

16. Other information

History

Date of issue/Date of revision : 26 September 2021

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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)
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

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