SAFETY DATA SHEET

Date of issue/Date of revision 28 August 2025
Version 4

Section 1. Identification

Product name : BRIDGE DECK CONCRETE PRIMER- A
Product code : 00464415
Other means of identification : Not available.
Product type : Liquid.

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

Product use : Industrial applications, Professional applications, Used by spraying.
Use of the substance/ mixture : Coating.
Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
SETIQ Interior de la República: 800-00-214-00 (México)
SETIQ Ciudad de México: (55) 5559-1588 (México)
Technical Phone Number : 888-977-4762

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 31.2% (oral), 78.7% (dermal), 23% (inhalation)

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Combustible liquid.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Harmful if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.
May cause cancer.
May cause damage to organs through prolonged or repeated exposure. (respiratory system)

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. Wear respiratory 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. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or doctor. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store 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.

Supplemental label elements : Moisture-sensitive material. 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. Skin contact to isocyanate monomer may lead to allergic lung reaction. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Section 2. Hazards identification

Hazards identified when used : Photosensitive agents : 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. In case of accidental skin 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, rash or blistering occurs after contact.

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product name : BRIDGE DECK CONCRETE PRIMER- A

Ingredient name	Synonyms	%	CAS number
4,4'-methylenediphenyl diisocyanate	4,4’-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; Benzene, 1,1'-methylenebis [4-isocyanato-; Benzene, 1,1'-methylenebis(4-isocyanato-; 4,4'-Diisocyanatodiphenylmethane; 4,4'-Diphenylmethane diisocyanate; 4,4-Methylenediphenyl diisocyanate; Isocyanic acid, methylenedi-p-phenylene ester; Methylenebis[4-phenyl isocyanate; Methylene, 4,4'-diphenyl diisocyanate-; Methylene bisphenyl isocyanate (MDI)	15 - 40	101-68-8
o-(p-isocyanatobenzyl)phenyl isocyanate	diphenylmethane-2,4'-diisocyanate; Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-; Benzene, 1-isocyanato-2-((4-isocyanatophenyl) methyl)-; Benzene, 1-isocyanato-2-[4-isocyanatophenyl)methyl]-; 1-isocyanato-2-(4-isocyanatobenzyl) benzene; 2,4'-methylenediphenylene diisocyanate; 2,4′-MDI; 2,4’-methylenediphenyl diisocyanate; diphenylmethane-2,4′-diisocyanate; o-(pisocyanatobenzyl) phenyl isocyanate; diphenylmethane-2,4’-diisocyanate	10 - 30	5873-54-1
Solvent naphtha (petroleum), light aromatic	Low boiling point naphtha - unspecified; Solvent naphtha (petroleum), light arom; Solvent naphtha, petroleum, light aromatic; Aromatic hydrocarbon solvents - medium flashpoint; Light aromatic solvent naphtha; Solvent naphtha, light aromatic; Solvent naphtha (petroleum), light aromatic; Light aromatic solvent naphtha (petroleum) (C8 to C10);	10 - 30	64742-95-6

Section 3. Composition/information on ingredients

	Solvent naphtha, petroleum, light arom.; AROMATIC PETROLUEM DISTILLATE; SOLVENT, AROMATIC PETROLEUM		
1,2,4-trimethylbenzene	Benzene, 1,2,4-trimethyl-; .pseudo.-Cumene; Pseudocumene; psi-Cumene; Asymmetrical trimethylbenzene; hemimellitene; solution of more than 61 % but not more than 63 % by weight of methylcyclopentadienyl manganese tricarbonyl (CAS RN 12108-13-3) in an aromatic hydrocarbon solvent, containing by weight not more than: — 4,9 % of 1,2,4-trimethylbenzene (CAS RN 95-63-6), — 4,9 % of naphthalene (91-20-3), and — 0,5 % of 1,3,5-trimethylbenzene (108-67-8); Trimethylbenzene; unsym-Trimethylbenzene; Trialkyl(C1-4) benzene; Tri-or tetramethylbenzene	7 - 13	95-63-6
2,2'-methylenediphenyl diisocyanate	2,2’-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate; Benzene, 1,1'-methylenebis [2-isocyanato-; 1,1'-Methylenebis [2-isocyanatobenzene; 1,1'-methanediylbis(2-isocyanatobenzene); 2,2'-Methylenedi(phenyl isocyanate); Benzene, 1,1′-methylenebis [2-isocyanato-; 2,2′-MDI; diphenylmethane-2,2’-diisocyanate; 1,1'-Methylenebis(2-isocyanatobenzene); Diphenylmethanediisocyanate	1 - 5	2536-05-2
mesitylene	1,3,5-trimethylbenzene; Benzene, 1,3,5-trimethyl-; 1,3,5-Trimethylbenezene; sym-Trimethylbenzene; Symmetrical trimethylbenzene; solution of more than 61 % but not more than 63 % by weight of methylcyclopentadienyl manganese tricarbonyl (CAS RN 12108-13-3) in an aromatic hydrocarbon solvent, containing by weight not more than: — 4,9 % of 1,2,4-trimethylbenzene (CAS RN 95-63-6), — 4,9 % of naphthalene (91-20-3), and — 0,5 % of 1,3,5-trimethylbenzene (108-67-8); Trimethylbenzenes; 1,3,5-TRIMETHYLBENZENE; Trialkyl (C1-4)benzene; Tri-or tetramethylbenzene; MESITYLENE (1,3,5-TRIMETHYLBENZENE)	1 - 5	108-67-8

Section 3. Composition/information on ingredients

propylbenzene	Benzene, propyl-; N-PROPYLBENZENE; Phenylpropane; 1-Propylbenzene; n-Alkylbenzene (C3-36); Isocumol	1 - 5	103-65-1
1,2,3-trimethylbenzene	Benzene, 1,2,3-trimethyl-; Hemellitol; hemimellitene; Trialkyl(C1-4)benzene; Tri-or tetramethylbenzene; Vicinal trimethyl benzene; trimethyl benzene	1 - 5	526-73-8
cumene	Benzene, (1-methylethyl)-; Isopropylbenzene; 2-Phenyl propane; Cumol; 1-methylethylbenzene; Cumene (I); Benzene, (1-methylethyl)- (I); Benzene, 1-methylethyl-; isopropylbenzol; (1-methyl/ethyl)benzene; (1-Methylethyl) benzene	0.1 - 1	98-82-8
ethylbenzene	Benzene, ethyl-; Phenylethane; Ethylbenzol; photosensitive emulsion consisting of cyclized polyisoprene containing: — 55 % or more but not more than 75 % by weight of xylene (CAS RN 1330-20-7) and — 12 % or more but not more than 18 % by weight of ethylbenzene (CAS RN 100-41-4); EB; Mono-(or di-) methyl (ethyl,bromoallyl, bromopropyloxycarbonyl orchloropropyloxycarbonyl) benzene	0.1 - 1	100-41-4
2,4-dioxo-1,3-diazetidine-1,3-diylbis[p-phenylenemethylene-p-phenylene] diisocyanate	1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]-; 1,3-Bis[4-[(4-isocyanatophenyl)methyl; 1,3-Bis[4-[(4-isocyanatophenyl)methyl] phenyl]-1,3-diazetidine-2,4-dione; DIAZETIDINE(1,3)-2,4-DIONE, 1,3-BIS (4-((4- ISOCYANATOPHENYL)METHYL) PHENYL)-	0.1 - 1	17589-24-1

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

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.
In case of accidental skin 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, rash or blistering occurs after contact.

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 : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

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

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
wheezing and breathing difficulties
asthma

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : No specific data.

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.

Section 4. First aid measures

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. 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 : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
Cyanate and isocyanate.
hydrogen cyanide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through 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).

Section 6. Accidental release measures

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.

Special provisions : 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). Place in a suitable container. The contaminated area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is reached, close container and dispose of according to local regulations (see section 13). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. 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. 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. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Section 7. Handling and storage

Advice on general occupational hygiene : 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. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : 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.
Precautions should be taken to minimize exposure to atmospheric humidity or water. CO_2 will be formed, which, in closed containers, could result in pressurization.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
4,4'-methylenediphenyl diisocyanate	**ACGIH TLV (United States, 1/2007)** TWA 8 hours: 0.05 mg/m³. **OSHA PEL (United States, 5/2018)** CEIL: 0.02 ppm. CEIL: 0.2 mg/m³.
o-(p-isocyanatobenzyl)phenyl isocyanate	None.
Solvent naphtha (petroleum), light aromatic	None.
1,2,4-trimethylbenzene	**ACGIH TLV (United States, 1/2024)** TWA 8 hours: 10 ppm.
2,2'-methylenediphenyl diisocyanate	None.
mesitylene	**ACGIH TLV (United States, 1/2024) [trimethyl benzene, isomers]** TWA 8 hours: 10 ppm.
propylbenzene	None.
1,2,3-trimethylbenzene	**ACGIH TLV (United States, 1/2024) [trimethyl benzene, isomers]** TWA 8 hours: 10 ppm.
cumene	**ACGIH TLV (United States, 1/2024)** TWA 8 hours: 5 ppm. **OSHA PEL (United States, 5/2018)** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 245 mg/m³.
ethylbenzene	**ACGIH TLV (United States, 1/2024)** Ototoxicant. TWA 8 hours: 20 ppm. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 100 ppm.

Section 8. Exposure controls/personal protection

2,4-dioxo-1,3-diazetidine-1,3-diylbis[p-phenylenemethylene-p-phenylene] diisocyanate	TWA 8 hours: 435 mg/m³. None.

Key to abbreviations

A	=	Acceptable Maximum Peak	S	=	Potential skin absorption
ACGIH	=	American Conference of Governmental Industrial Hygienists.	SR	=	Respiratory sensitization
C	=	Ceiling Limit	SS	=	Skin sensitization
F	=	Fume	STEL	=	Short term Exposure limit values
IPEL	=	Internal Permissible Exposure Limit	TD	=	Total dust
OSHA	=	Occupational Safety and Health Administration.	TLV	=	Threshold Limit Value
R	=	Respirable	TWA	=	Time Weighted Average
Z	=	OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances			

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : 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/face protection : Chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : polyethylene 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.

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.

Section 8. Exposure controls/personal protection

Respiratory protection : Use an air-fed respirator unless a site-specific assessment determines that an air-fed respirator is not necessary, in which case the results of the risk assessment should be utilized to determine whether respiratory protection is necessary and what type of protection is appropriate. 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.
The respiratory protection shall be in accordance to 29 CFR 1910.134.

Restrictions on use : Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Various

Odor : Faint odor.

pH : Not applicable.

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 73°C (163.4°F) [Product does not sustain combustion.]

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Flammability : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.05

Density (lbs / gal) : 8.76

Solubility(ies) :

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water : Not applicable.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): >21 mm^2/s (>21 cSt)

% Solid. (w/w) : 62.366

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : In a fire, hazardous decomposition products may be produced.
Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from: oxidizing agents, strong alkalis, strong acids, amines, alcohols, water. Uncontrolled exothermic reactions occur with amines and alcohols.

Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: Cyanate and isocyanate. carbon oxides nitrogen oxides hydrogen cyanide

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Dose
4,4'-methylenediphenyl diisocyanate	Rat - Oral - LD50	9200 mg/kg
Solvent naphtha (petroleum), light aromatic	Rat - Oral - LD50	8400 mg/kg
	Rabbit - Dermal - LD50	3.48 g/kg
1,2,4-trimethylbenzene	Rat - Oral - LD50	5 g/kg
	Rat - Inhalation - LC50 Vapor	18000 mg/m³ [4 hours]
mesitylene	Rat - Oral - LD50	5000 mg/kg
	Rat - Inhalation - LC50 Vapor	24000 mg/m³ [4 hours]
propylbenzene	Rat - Oral - LD50	6040 mg/kg
1,2,3-trimethylbenzene	Rat - Oral - LD50	11.4 g/kg
cumene	Rabbit - Dermal - LD50	12.3 g/kg
	Rat - Oral - LD50	2260 mg/kg
	Rat - Inhalation - LC50 Vapor	39000 mg/m³ [4 hours]
ethylbenzene	Rat - Oral - LD50	3.5 g/kg
	Rabbit - Dermal - LD50	17.8 g/kg
	Rat - Inhalation - LC50 Vapor	17.8 mg/l [4 hours]

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

Skin corrosion/irritation

Product/ingredient name	Species	Dose	Score
4,4'-methylenediphenyl diisocyanate	Rabbit - Skin - Irritant	-	-

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

Serious eye damage/eye irritation

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

Respiratory corrosion/irritation

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

Section 11. Toxicological information

Sensitization

Product/ingredient name	Species	Result
4,4'-methylenediphenyl diisocyanate	Mouse - skin OECD 429 Guinea pig - Respiratory	Result: Sensitizing Result: Sensitizing

Skin

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

Respiratory

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

Mutagenicity

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

Carcinogenicity

Product/ingredient name	Species	Result
4,4'-methylenediphenyl diisocyanate	Rat - Inhalation - TC OECD 453 0 to 6 mg/m³ [5 days per week] [2 years]	Result: Positive

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

Classification

Product/ingredient name	OSHA	IARC	NTP
4,4'-methylenediphenyl diisocyanate	-	3	-
cumene	-	2B	Reasonably anticipated to be a human carcinogen.
ethylbenzene	-	2B	-

Carcinogen Classification code:
IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
OSHA: +
Not listed/not regulated: -

Reproductive toxicity

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

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
4,4'-methylenediphenyl diisocyanate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
o-(p-isocyanatobenzyl)phenyl isocyanate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Solvent naphtha (petroleum), light aromatic	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1,2,4-trimethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
2,2'-methylenediphenyl diisocyanate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
mesitylene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
propylbenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
cumene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Section 11. Toxicological information

2,4-dioxo-1,3-diazetidine-1,3-diylbis[p-phenylenemethylene-p-phenylene] diisocyanate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
4,4'-methylenediphenyl diisocyanate	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory system) (inhalation) - Category 2
o-(p-isocyanatobenzyl)phenyl isocyanate	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
2,2'-methylenediphenyl diisocyanate	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
cumene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2
2,4-dioxo-1,3-diazetidine-1,3-diylbis[p-phenylenemethylene-p-phenylene] diisocyanate	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nose/sinuses) (inhalation) - Category 2

Target organs : Contains material which causes damage to the following organs: brain, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, lungs, upper respiratory tract, skin, eyes.

Aspiration hazard

Product/ingredient name	Result
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
propylbenzene	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

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

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
wheezing and breathing difficulties
asthma

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Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : No specific data.

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

Conclusion/Summary : There are no data available on the mixture itself. Skin contact to isocyanate monomer may lead to allergic lung reaction. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Repeated exposure may lead to permanent respiratory disability. Acrylate components of the mixture have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

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

General : May cause 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.

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Reproductive toxicity : No known significant effects or critical hazards.

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)
BRIDGE DECK CONCRETE PRIMER- A	26122.7	3772.3	N/A	12.3	2.7
4,4'-methylenediphenyl diisocyanate	9200	N/A	N/A	11	N/A
o-(p-isocyanatobenzyl)phenyl isocyanate	N/A	N/A	N/A	11	1.5
Solvent naphtha (petroleum), light aromatic	8400	3480	N/A	N/A	N/A
1,2,4-trimethylbenzene	5000	N/A	N/A	18	1.5
2,2'-methylenediphenyl diisocyanate	N/A	N/A	N/A	11	1.5
mesitylene	5000	N/A	N/A	24	N/A
propylbenzene	6040	N/A	N/A	N/A	N/A
1,2,3-trimethylbenzene	11400	N/A	N/A	N/A	N/A
cumene	2260	12300	N/A	39	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5
2,4-dioxo-1,3-diazetidine-1,3-diylbis[p-phenylenemethylene-p-phenylene] diisocyanate	N/A	N/A	N/A	N/A	1.5

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species
Solvent naphtha (petroleum), light aromatic	Acute - LC50 8.2 mg/l [96 hours]	Fish
ethylbenzene	Acute - EC50 - Fresh water 1.8 mg/l [48 hours]	Daphnia
	Chronic - NOEC - Fresh water 1 mg/l	Daphnia - *Ceriodaphnia dubia*

Conclusion/Summary : Not available.

Persistence and degradability

Product/ingredient name	Result
ethylbenzene	79% [10 days] - Readily

Conclusion/Summary : Not available.

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
4,4'-methylenediphenyl diisocyanate	4.51	-	High
o-(p-isocyanatobenzyl) phenyl isocyanate	4.51	-	High
1,2,4-trimethylbenzene	3.63	120.23	Low
2,2'-methylenediphenyl diisocyanate	5.22	-	High
mesitylene	3.42	186.21	Low
propylbenzene	3.69	-	Low
1,2,3-trimethylbenzene	3.66	194.98	Low
cumene	3.55	35.48	Low
ethylbenzene	3.6	79.43	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Section 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.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN3082	UN3082	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (xylene, 4,4'-methylenediphenyl diisocyanate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), light aromatic, 1,2,4-trimethylbenzene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), light aromatic, 1,2,4-trimethylbenzene)

14. Transport information

Transport hazard class (es)	9	9	9
Packing group	III	III	III
Environmental hazards	No.	Yes.	Yes.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), light aromatic)	Not applicable.
Product RQ (lbs)	13285.9	Not applicable.	Not applicable.
RQ substances	(xylene, 4,4'-methylenediphenyl diisocyanate)	Not applicable.	Not applicable.

Additional information

DOT : The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials.

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

Section 15. Regulatory information

irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
4,4'-methylenediphenyl diisocyanate	≥20 - ≤37	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1A SKIN SENSITIZATION - Category 1A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
o-(p-isocyanatobenzyl)phenyl isocyanate	≥20 - ≤34	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1A SKIN SENSITIZATION - Category 1A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Solvent naphtha (petroleum), light aromatic	≥10 - <20	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
1,2,4-trimethylbenzene	≥10 - ≤13	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Defatting irritant
2,2'-methylenediphenyl diisocyanate	≥1.0 - ≤3.8	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1A SKIN SENSITIZATION - Category 1A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
mesitylene	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Section 15. Regulatory information

propylbenzene	≥1.0 - ≤5.0	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1
1,2,3-trimethylbenzene	≥1.0 - ≤5.0	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
cumene	<1.0	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 3 CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1
ethylbenzene	<1.0	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1
2,4-dioxo-1,3-diazetidine-1,3-diylbis[p-phenylenemethylene-p-phenylene] diisocyanate	<1.0	HNOC - Defatting irritant ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2B RESPIRATORY SENSITIZATION - Category 1A SKIN SENSITIZATION - Category 1B CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

SARA 313

Supplier notification :

Chemical name	CAS number	Concentration
4,4'-methylenediphenyl diisocyanate	101-68-8	15 - 40
1,2,4-trimethylbenzene	95-63-6	7 - 13
cumene	98-82-8	0.1 - 1
ethylbenzene	100-41-4	0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

⚠ **WARNING**: Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Please refer to Section 2 of this document for GHS hazard classifications.
The customer is responsible for determining the PPE code for this material.

Date of previous issue : **3/4/2025**

Organization that prepared the SDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
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)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

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