

SAFETY DATA SHEET



Date of issue/Date of revision 27 August 2025

Version 2

Section 1. Identification

Product name : VERSAFLEX 468 HG BLACK BASE

Product code : 00469525

Other means of identification : Not available.

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.

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 3
SKIN CORROSION - Category 1B
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION - Category 2
 Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 17.9% (oral), 30.4% (dermal), 55.9% (inhalation)

GHS label elements

Hazard pictograms



Signal word

: Danger

Section 2. Hazards identification

Hazard statements	- Flammable liquid and vapor. - Causes severe skin burns and eye damage. - May cause an allergic skin reaction. - May cause cancer. - Suspected of damaging fertility or the unborn child.
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 breathing 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. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. If skin irritation or rash occurs: Get medical advice or attention. Wash contaminated clothing before reuse. 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.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Do not taste or swallow. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.
Hazards not otherwise classified	Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: VERSAFLEX 468 HG BLACK BASE

Ingredient name	Synonyms	%	CAS number
barium sulfate	Sulfuric acid, barium salt (1:1); CI 77120; Barytes; Barium salt of sulfuric acid; Barite; Artificial barite; barium sulphate; C.I. Pigment White 21; barium sulfate, natural; blanc fixe; C.I. 77120	15 - 40	7727-43-7
n-butyl acetate	Acetic acid, butyl ester; Butyl Acetate; n-Butyl-acetate; Butyl ethanoate; n-Butyl ester of acetic acid; product composed	7 - 13	123-86-4

Section 3. Composition/information on ingredients

	of hydrocarbons (predominantly paraffinic and naphthenic) and n-butyl acetate; 1-butyl acetate; 1-Acetoxypentane; Butyl ester, Acetic acid; normal butyl acetate; Acetic acid, n-butyl ester		
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	DESMOPHEN VP-LS 2973 E; DESMOPHEN VP-LS 2985 E; DESMOPHEN VP-LS 2975 E; Aspartic acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, 1,1',4,4'-tetraethyl ester; DL-Aspartic acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, tetraethyl ester; Aspartic acid, N,N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-, tetraethyl ester; 1,4-diethyl 2-[[4-({4-[(1,4-diethoxy-1,4-dioxobutan-2-yl)amino]-3-methylcyclohexyl)methyl}-2-methylcyclohexyl]amino]butanedioate; Aspartic acid, N,N'-(methylenebis(2-methyl-4,1-cyclohexanediyl))bis-, 1,1',4,4'-tetraethyl ester; N,N'-(3,3'-Dimethyldicyclohexylmethane-4,4'-diyl)-bis-aspartic-tetraethyl ester; Tetraethyl N, N'-[methylenebis(2-methyl-4,1-cyclohexane diyl)]bis(aspartate)	5 - 10	136210-32-7
heptan-2-one	methyl amyl ketone; 2-Heptanone; Methyl n-amyl ketone; METHYL (n-AMYL) KETONE; n-Amyl methyl ketone; Amyl methyl ketone; sensitising emulsion consisting of: — by weight not more than 12 % of diazooxonaphthalenesulphonic acid ester — phenolic resins in a solution containing at least 2-methoxy-1-methylethyl acetate (CAS RN 108-65-6) or ethyl lactate (CAS RN 97-64-3) or methyl 3-methoxypropionate (CAS RN 3852-09-3) or 2-heptanone (CAS RN 110-43-0); METHYL PENTYL KETONE; Methyl (namyl) ketone; KETONE C7; methyl-n-amyl-ketone	3 - 7	110-43-0
Ketimine	Isophoronediamine, methyl isobutyl ketone reaction product; Amine	3 - 7	71077-09-3
Wollastonite	Calcium silicate; calcium silicate, naturally occurring as wollastonite; Wollastonite (Ca(SiO ₃)); Fibres-Natural Mineral Fibres, Wollastonite;	1 - 5	13983-17-0

Section 3. Composition/information on ingredients

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	Aedelforsite; CALCIUM METASILICATES; wollastonite dust; wollastonie; calcium,dioxido(oxo)silane Decanedioic acid, 1,10-bis (1,2,2,6,6-pentamethyl-4-piperidiny) ester; Decanedioic acid, bis (1,2,2,6,6-pentamethyl-4-piperidiny) ester; bis(1,2,2,6,6-pentamethylpiperidin-4-yl) decanedioate; Bis (1,2,2,6,6-pentamethyl-4-piperidiny) decanedioate; Bis(1,2,2,6,6-pentamethyl-4-piperidiny) sebacate; Bis (1,2,2,6,6-pentamethyl-4-piperidyl) decanedioate; Decanedioic acid bis (1,2,2,6,6-pentamethyl-4-piperidiny) ester; DECANEDIOATE, BIS (1,2,2,6,6-PENTAMETHYL-4-PIPERIDINYL) (PICCS); Bis(N-methyl-2,2,6,6-tetramethyl-4-piperidiny) sebacate; Bis(1,2,2,6,6-pentamethyl-4-piperidyl) 1,8-octanedicarboxylate; DECANEDIOATE, BIS (1,2,2,6,6-PENTAMETHYL-4-PIPERIDINYL)	1 - 5	41556-26-7
zinc oxide	CI 77947; Zinc oxide fume; Zinc peroxide; Zinc, oxide Fume; ZINC OXIDE (ZNO); FLOWERS OF ZINC; zinc oxide, nanoparticles, uncoated; zinc oxide, nanoparticles, coated with [3-(methacryloxy)propyl] trimethoxysilane; C.I. Pigment White 4; Zinc monoxide; Zinc white	1 - 5	1314-13-2
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine	1,3-bis[12-hydroxy-octadecamide-N-methylene]-benzene; Castor-oil, hydrogenated, N,N'-[1,3-phenylenebis(methylene)]bis-amides; Amides, castor-oil, hydrogenated, N,N'-[1,3-phenylenebis(methylene)] bis-; Amides, castor-oil, hydrogenated, N,N'-[1,3-phenylenebis(methylene)]bis-	0.5 - 1.5	911674-82-3
carbon black	Lampblack; Acetylene black; C.I. 77266; C.I. Pigment Black 6; C.I. Pigment Black 7; Charcoal	0.5 - 1.5	1333-86-4
α -[3-[3-(2H-benzotriazol-2-yl) derivatives	Poly(oxy-1,2-ethanediyl), .alpha.-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-.omega.-hydroxy-; alpha-{3-[3-(2H-Benzotriazol-2-yl)-5-tert-butyl-	0.1 - 1	104810-48-2

Section 3. Composition/information on ingredients

	4-hydroxyphenyl]propanoyl}-omega-hydroxypoly(oxyethylene); Condensation product of .alpha.-hydro-.omega.-hydroxypoly(3-11)(oxyethylene) with methyl 3-[3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl]propionate; α-[3-[3-(2H-Benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxypoly(oxy-1,2-ethanediyl); Poly(oxy-1,2-ethanediyl), .alpha.-[3-[3-(2H- benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-.omega.- hydroxy-		
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) ester; Decanedioic acid, methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester; methyl 1,2,2,6,6-pentamethylpiperidin-4-yl decanedioate; methyl 1,2,2,6,6-pentamethylpiperidin-4-yl sebacate; Decanedioic acid methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester; Methyl 1,2,2,6,6-pentamethyl-4-piperidiyl sebacate; Methyl 1,2,2,6,6-pentamethyl-4-piperidinyl sebacate; DECANEDIOATE, METHYL, 1,2,2,6,6-PENTAMETHYL-4-PIPERIDINYL; Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; Decanedioic acid methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester	0.1 - 1	82919-37-7
crystalline silica, non-respirable powder (>10 microns)	alpha-quartz; Silica, crystalline (quartz); Silica, Crystalline Quartz; SILICA, CRYSTALLINE, QUARTZ; Silica-Crystalline, Quartz; Silica - Crystalline Quartz; Silica-Crystalline : Quartz; Silica, crystalline - quartz	0.1 - 1	14808-60-7
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, bromopropyl)oxycarbonyl benzene	0.1 - 1	100-41-4

Section 3. Composition/information on ingredients

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** : 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** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
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:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 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)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. 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
sulfur oxides
phosphorus oxides
metal oxide/oxides

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

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

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.

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 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. 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.

Product code 00469525 Date of issue 27 August 2025 Version 2	
Product name VERSAFLEX 468 HG BLACK BASE	
Section 7. Handling and storage	
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.
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	: 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.
Section 8. Exposure controls/personal protection	
Control parameters	
Occupational exposure limits	
Ingredient name	Exposure limits
barium sulfate	ACGIH TLV (United States, 1/2024) TWA 8 hours: 5 mg/m³. Form: Inhalable fraction. OSHA PEL (United States, 5/2018) TWA 8 hours: 15 mg/m³. Form: Total dust. TWA 8 hours: 5 mg/m³. Form: Respirable fraction.
n-butyl acetate	ACGIH TLV (United States, 1/2024) [Butyl acetates] STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 150 ppm. TWA 8 hours: 710 mg/m³.
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane heptan-2-one	None. ACGIH TLV (United States, 1/2024) TWA 8 hours: 50 ppm. TWA 8 hours: 233 mg/m³. OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 465 mg/m³.
Ketimine Wollastonite	None. ACGIH TLV (United States, 1/2024) TWA 8 hours: 1 mg/m³. Form: Inhalable fraction.

Section 8. Exposure controls/personal protection

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
zinc oxide

Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine

carbon black

α -[3-[3-(2H-benzotriazol-2-yl) derivatives
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
crystalline silica, non-respirable powder (>10 microns)

ethylbenzene

None.

ACGIH TLV (United States, 1/2024)

TWA 8 hours: 2 mg/m³. Form: Respirable fraction.

STEL 15 minutes: 10 mg/m³. Form: Respirable fraction.

OSHA PEL (United States, 5/2018)

TWA 8 hours: 15 mg/m³. Form: Total dust.

TWA 8 hours: 5 mg/m³. Form: Respirable fraction.

TWA 8 hours: 5 mg/m³. Form: Fume.

ACGIH TLV (United States)

TWA: 3 mg/m³ (Respirable fraction).

TWA: 10 mg/m³ (Total dust).

ACGIH TLV (United States, 1/2024)

TWA 8 hours: 3 mg/m³. Form: Inhalable fraction.

OSHA PEL (United States, 5/2018)

TWA 8 hours: 3.5 mg/m³.

None.

None.

ACGIH TLV (United States, 1/2024) [Silica, crystalline]

TWA 8 hours: 0.025 mg/m³. Form: Respirable fraction.

OSHA PEL (United States, 5/2018) [Silica, crystalline]

TWA 8 hours: 50 µg/m³. Form: Respirable dust.

OSHA PEL Z3 (United States, 6/2016)

TWA 8 hours: 250 / (%SiO₂+5) mppcf. Form: Respirable.

TWA 8 hours: 10 / (%SiO₂+2) mg/m³. Form: Respirable.

ACGIH TLV (United States, 1/2024)

Ototoxicant.

TWA 8 hours: 20 ppm.

OSHA PEL (United States, 5/2018)

TWA 8 hours: 100 ppm.

TWA 8 hours: 435 mg/m³.

Key to abbreviations

A	= Acceptable Maximum Peak
ACGIH	= American Conference of Governmental Industrial Hygienists.
C	= Ceiling Limit
F	= Fume
IPEL	= Internal Permissible Exposure Limit
OSHA	= Occupational Safety and Health Administration.
R	= Respirable
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

S	= Potential skin absorption
SR	= Respiratory sensitization
SS	= Skin sensitization
STEL	= Short term Exposure limit values
TD	= Total dust
TLV	= Threshold Limit Value
TWA	= Time Weighted Average

Consult local authorities for acceptable exposure limits.

Section 8. Exposure controls/personal protection

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 and face shield.

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 : nitrile neoprene

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. The respiratory protection shall be in accordance to 29 CFR 1910.134.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Black.
Odor	: Amine-like.
pH	: Not applicable.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 23°C (73.4°F)
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	: 1.45
Density (lbs / gal)	: 12.1

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 mm²/s (>21 cSt)

% Solid. (w/w) : 80.619

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 : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Dose
Barium sulfate	Rat - Oral - LD50	>5000 mg/kg
n-butyl acetate	Rat - Dermal - LD50	>2000 mg/kg
	Rabbit - Dermal - LD50	>17600 mg/kg
	Rat - Oral - LD50	10.768 g/kg
	Rat - Inhalation - LC50 Vapor	2000 ppm [4 hours]
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	Rat - Inhalation - LC50 Vapor	>21.1 mg/l [4 hours]
	Rat - Oral - LD50	>2000 mg/kg
	Rat - Dermal - LD50	>2000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>4224 mg/l [4 hours]
heptan-2-one	Rat - Oral - LD50	1.6 g/kg
	Rabbit - Dermal - LD50	10.206 g/kg
	Rat - Inhalation - LC50 Vapor	16.7 mg/l [4 hours]
Ketimine	Rat - Oral - LD50	2000 mg/kg
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	Rat - Oral - LD50	3.125 g/kg
zinc oxide	Rat - Oral - LD50	>5000 mg/kg
	Rat - Dermal - LD50	>2000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>5700 mg/m ³ [4 hours]
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine	Rat - Inhalation - LC50 Dusts and mists	>5.08 mg/l [4 hours]
carbon black	Rat - Oral - LD50	>10 g/kg
α-[3-[3-(2H-benzotriazol-2-yl) derivatives	Rat - Male, Female - Oral - LD50	>5000 mg/kg
	Rat - Male, Female - Dermal - LD50	>2000 mg/kg
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rat - Oral - LD50	3.125 g/kg
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

Corrosive to the skin. (OECD In Vitro Skin Corrosion: Human

Ingredient name **Skin Irritation** (Skin Irritation Test)

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

Serious eye damage/eye irritation

Ingredient name **Summary**

Section 11. Toxicological information

Ketimine Corrosive to eyes.

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.

Sensitization

Product/ingredient name	Species	Result
Ketimine	Mouse - skin OECD [Skin sensitization: Local Lymph Node Assay]	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

Product/ingredient name	Species	Result
Ketimine	In vitro - Bacteria OECD [Bacterial Reverse Mutation Test]	Result: Negative

Ingredient name

Summary

Ketimine Not mutagenic in Ames test.

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

Carcinogenicity

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

Classification

Product/ingredient name	OSHA	IARC	NTP
Wollastonite	-	3	-
carbon black	-	2B	-
crystalline silica, non-respirable	+	1	Known to be a human carcinogen.
powder (>10 microns)	-	2B	-
ethylbenzene	-		

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
n-butyl acetate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
heptan-2-one	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Product/ingredient name	Result
ethylbenzene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2

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

Aspiration hazard

Product/ingredient name	Result
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
Ingestion : Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
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:
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

Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. 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. Ingestion may cause nausea, diarrhea and vomiting. 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 : 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.

Reproductive toxicity : Suspected of damaging 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)
VERSAFLEX 468 HG BLACK BASE	7742.9	4087.3	N/A	122.6	11.0
barium sulfate	N/A	2500	N/A	N/A	N/A
n-butyl acetate	10768	N/A	N/A	N/A	N/A
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	2500	2500	N/A	N/A	N/A
heptan-2-one	1600	10206	N/A	16.7	1.5
Ketimine	2000	N/A	N/A	N/A	N/A
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	3125	N/A	N/A	N/A	N/A

Section 11. Toxicological information

zinc oxide	N/A	2500	N/A	N/A	N/A
α -[3-[3-(2H-benzotriazol-2-yl) derivatives	N/A	2500	N/A	N/A	N/A
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	3125	N/A	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species
 n-butyl acetate	Acute - LC50 OECD 203 18 mg/l [96 hours]	Fish
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	Acute - LC50 66 mg/l [96 hours] Acute - EC50 88.6 mg/l [48 hours] Acute - IC50 113 mg/l [72 hours]	Fish - <i>Danio rerio</i> Daphnia - <i>Daphnia magna</i> Algae - <i>Scenedesmus subspicatus</i>
heptan-2-one	Acute - LC50 131 mg/l [96 hours]	Fish
Ketimine	LC50 >53.1 mg/l [96 hours] EC50 25.9 mg/l [48 hours] Acute - EC50 OECD 201 13 mg/l [72 hours]	Fish Daphnia Algae
zinc oxide	Acute - EC50 - Fresh water OECD Age: <24 hours 0.481 mg/l [48 hours] Intoxication Acute - EC50 0.17 mg/l [72 hours] Chronic - NOEC - Fresh water 0.017 mg/l [72 hours]	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate Algae Algae
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine α -[3-[3-(2H-benzotriazol-2-yl) derivatives	Acute - LC50 OECD [Fish, Acute Toxicity Test] 2.8 mg/l [96 hours] Acute - EC50 4 mg/l [48 hours] Chronic - NOEC OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test] 0.23 mg/l [21 days] Acute - EC50 OECD [Alga, Growth Inhibition]	Fish Daphnia Daphnia Algae

Section 12. Ecological information

ethylbenzene	Test]	
	16.6 mg/l [72 hours]	
	Acute - NOEC	Algae
	OECD [Alga, Growth Inhibition Test]	
	3.2 mg/l [72 hours]	
	Acute - EC50 - Fresh water	Daphnia
	1.8 mg/l [48 hours]	
	Chronic - NOEC - Fresh water	Daphnia - <i>Ceriodaphnia dubia</i>
	1 mg/l	

Conclusion/Summary : Not available.

Persistence and degradability

Product/ingredient name	Result
n-butyl acetate	TEPA and OECD 301D
heptan-2-one	83% [28 days] - Readily
Ketimine	OECD 310
α-[3-[3-(2H-benzotriazol-2-yl) derivatives	69% [28 days] - Readily
ethylbenzene	0% [28 days] - Not readily
	OECD [Ready Biodegradability - CO ₂ Evolution Test]
	24% [28 days] - Not readily
	79% [10 days] - Readily

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
n-butyl acetate	2.3	-	Low
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	5.99	-	High
heptan-2-one	2.26	-	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	UN3470	UN3470	UN3470
UN proper shipping name	PAINT, CORROSIVE, FLAMMABLE	PAINT, CORROSIVE, FLAMMABLE	PAINT, CORROSIVE, FLAMMABLE
Transport hazard class(es)	8 (3)	8 (3)	8 (3)
Packing group	II	II	II
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(trizinc bis(orthophosphate))	Not applicable.
Product RQ (lbs)	20988.3	Not applicable.	Not applicable.
RQ substances	(xylene, n-butyl acetate)	Not applicable.	Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

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.

14. Transport information

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 3
 SKIN CORROSION - Category 1B
 SERIOUS EYE DAMAGE - Category 1
 SKIN SENSITIZATION - Category 1
 CARCINOGENICITY - Category 1A
 TOXIC TO REPRODUCTION - Category 2
 HNOC - Corrosive to digestive tract
 HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
 butyl acetate	≥10 - ≤13	FLAMMABLE LIQUIDS - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl) methane	≥5.0 - ≤10	SKIN SENSITIZATION - Category 1B
heptan-2-one	≥1.0 - ≤6.9	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant
Ketimine	≥5.0 - ≤9.0	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1A HNOC - Corrosive to digestive tract
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	≥0.10 - ≤2.5	SKIN SENSITIZATION - Category 1B TOXIC TO REPRODUCTION - Category 2
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine	≥1.0 - ≤5.0	SKIN SENSITIZATION - Category 1B
carbon black	≥1.0 - ≤5.0	COMBUSTIBLE DUSTS CARCINOGENICITY - Category 2

Section 15. Regulatory information

α-[3-[3-(2H-benzotriazol-2-yl) derivatives	<1.0	SKIN SENSITIZATION - Category 1A
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	<1.0	SKIN SENSITIZATION - Category 1B
crystalline silica, non-respirable powder (>10 microns)	≤1.0	TOXIC TO REPRODUCTION - Category 2
ethylbenzene	<1.0	CARCINOGENICITY - Category 1A
		FLAMMABLE LIQUIDS - Category 2
		ACUTE TOXICITY (inhalation) - Category 4
		CARCINOGENICITY - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
		ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	zinc bis(orthophosphate)	7779-90-0	1 - 5
	zinc oxide	1314-13-2	1 - 5
	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 : 4/26/2024

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

Product code 00469525

Date of issue 27 August 2025

Version 2

Product name VERSAFLEX 468 HG BLACK BASE

Section 16. Other information

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.