

SAFETY DATA SHEET



The information in this Safety Data Sheet is required pursuant to Hazardous Product Regulations 2015.

Date of issue/Date of revision : 25 April 2024

Version : 2.04

Section 1. Identification

Product name : VERSAFLEX 468 HG WHITE RESIN

Product code : 00463561

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.

Supplier : PPG Architectural Coatings Canada, Inc.
1550, rue Ampère, bureau 500
Boucherville (Québec) J4B 7L4
Canada
+1 450-655-3121

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. Hazard identification

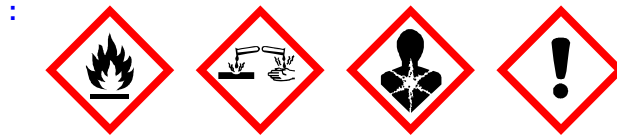
Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION - Category 1B
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
Health Hazards Not Otherwise Classified - Category 1

Section 2. Hazard identification

This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Flammable liquid and vapor.
 Causes severe skin burns and eye damage.
 May cause an allergic skin reaction.
 Suspected of causing cancer.
 Suspected of damaging fertility or the unborn child.
 Causes digestive tract burns.
 Prolonged or repeated contact may dry skin and cause irritation.

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 should 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. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage

: Store locked up.

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. 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.

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 16.9% (oral), 27.6% (dermal), 40.2% (inhalation)

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: VERSAFLEX 468 HG WHITE RESIN
Other means of identification	: Not available.

CAS number/other identifiers

Ingredient name	Synonyms	% (w/w)	CAS number
titanium dioxide	Titanium oxide; Titanium oxide (TiO ₂); CI 77891; Titanium peroxide; Rutile; C.I. Pigment White 6; titanium dioxide coated with isopropoxytitanium triisostearate, containing by weight 1,5 % or more but not more than 2,5 % of isopropoxytitanium triisostearate; glass flakes (CAS RN 65997-17-3): — of a thickness of 0,3 µm or more but not more than 10 µm, and — coated with titanium dioxide (CAS RN 13463-67-7) or iron oxide (CAS RN 18282- 10-5); titanium dioxide, other than those of heading 3206 11 00; C.I. 77891; E 171; titanium(IV) oxide, other than those of heading 3206 11 00	10 - 30*	13463-67-7
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	10 - 30*	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 of hydrocarbons (predominantly paraffinic and naphthenic) and n-butyl acetate; 1-butyl acetate; 1-Acetoxybutane; Butyl ester, Acetic acid; normal butyl acetate; Acetic acid, n-butyl ester	5 - 10*	123-86-4
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; N,N'-(3,3'-Dimethyldicyclohexylmethane-4,4'-diyl)-bis-aspartic-tetraethyl ester; Reaction products of diethyl maleate and 4,4'-(methylene)bis(2-methylcyclohexan-1-amine), which consists of N,N'-	5 - 10*	136210-32-7

Section 3. Composition/information on ingredients

	[methylenebis(2-methylcyclohexane-4,1-diyl)]bis(diethyl aspartate) as a major component; (2S,2'S)-Tetraethyl 2,2'-{[methylenebis(2-methylcyclohexane-4,1-diyl)]bis(azanediy)}disuccinate		
Ketimine	Isophoronediamine, methyl isobutyl ketone reaction product; Amine	3 - 7*	71077-09-3
heptan-2-one	methyl amyl ketone; 2-Heptanone; Methyl n-amyl ketone; METHYL (n-AMYL) KETONE; n-Amyl methyl ketone; Amyl methyl ketone; METHYL PENTYL KETONE; Methyl (namyl) ketone; KETONE C7; methyl-n-amyl-ketone; Ketone C-7	1 - 5*	110-43-0
Wollastonite	Calcium silicate; calcium silicate, naturally occurring as wollastonite; Wollastonite (Ca (SiO ₃)); Fibres-Natural Mineral Fibres, Wollastonite; Aedelforsite; CALCIUM METASILICATES; wollastonite dust; wollastonie; calcium,dioxido(oxo)silane	1 - 5*	13983-17-0
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	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-piperidyl) decanedioate; Decanedioic acid bis (1,2,2,6,6-pentamethyl-4-piperidiny) ester; DECANEDIOATE, BIS (1,2,2,6,6-PENTAMETHYL-4-PIPERIDINY) (PICCS); Bis(N-methyl-2,2,6,6-tetramethyl-4-piperidiny) sebacate; Bis(1,2,2,6,6-pentamethyl-4-piperidyl) 1,8-octanedicarboxylate; Bis (1,2,2,6,6-pentamethyl-4-piperidiny) sebacate; DECANEDIOATE, BIS (1,2,2,6,6-PENTAMETHYL-4-PIPERIDINY)	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-bis[12-hydroxy-octadecamide-N-methylene]-benzene; Castor-oil, hydrogenated, N,N'-[1,3-phenylenebis	0.5 - 1.5*	911674-82-3

Section 3. Composition/information on ingredients

1,3-phenylenedimethanamine	(methylene)]bis-amides; Amides, castor-oil, hydrogenated, N,N'-[1,3-phenylene-bis(methylene)] bis-; Amides, castor-oil, hydrogenated, N,N'-[1,3-phenylenebis(methylene)]bis-		
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-piperidyl 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	0.1 - 1*	82919-37-7
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, bromopropoxyloxycarbonyl orchloropropoxyloxycarbonyl) benzene	0.1 - 1*	100-41-4

*Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

SUB codes represent substances without registered CAS Numbers.

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.

Section 4. First-aid measures

- 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
- 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. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

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.

Section 6. Accidental release measures

- 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.
- 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
titanium dioxide	<p>CA British Columbia Provincial (Canada, 6/2022). [Titanium dioxide] TWA: 10 mg/m³ 8 hours. Form: Total dust TWA: 3 mg/m³ 8 hours. Form: respirable fraction</p> <p>CA Quebec Provincial (Canada, 6/2022). TWAEV: 10 mg/m³ 8 hours. Form: Total dust.</p> <p>CA Alberta Provincial (Canada, 6/2018). Skin sensitizer. OEL: 10 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 10 mg/m³ 8 hours. Form: total dust</p>
barium sulfate	<p>CA British Columbia Provincial (Canada, 6/2022). TWA: 5 mg/m³ 8 hours. Form: Inhalable</p> <p>CA Ontario Provincial (Canada, 6/2019). TWA: 5 mg/m³ 8 hours. Form: Inhalable particulate matter.</p> <p>CA Alberta Provincial (Canada, 6/2018). OEL: 10 mg/m³ 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</p> <p>CA Quebec Provincial (Canada, 6/2022). TWAEV: 5 mg/m³ 8 hours. Form: inhalable dust</p>
n-butyl acetate	<p>CA Alberta Provincial (Canada, 6/2018). Skin sensitizer. OEL: 950 mg/m³ 15 minutes. OEL: 200 ppm 15 minutes. OEL: 713 mg/m³ 8 hours. OEL: 150 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 6/2019). [butyl acetates, all isomers] STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 6/2022). [butyl acetate, all isomers] STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.</p>

Section 8. Exposure controls/personal protection

bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)
methane
Ketimine
heptan-2-one

**CA Quebec Provincial (Canada, 6/2022).
[butyl acetates (all isomers)]**

STEV: 150 ppm 15 minutes.

TWAEV: 50 ppm 8 hours.

None.

None.

**CA Alberta Provincial (Canada, 6/2018).
Skin sensitizer.**

OEL: 233 mg/m³ 8 hours.

OEL: 50 ppm 8 hours.

**CA British Columbia Provincial (Canada,
6/2022).**

TWA: 50 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).

TWA: 115 mg/m³ 8 hours.

TWA: 25 ppm 8 hours.

CA Quebec Provincial (Canada, 6/2022).

TWAEV: 233 mg/m³ 8 hours.

TWAEV: 50 ppm 8 hours.

**CA Saskatchewan Provincial (Canada,
7/2013).**

STEL: 60 ppm 15 minutes.

TWA: 50 ppm 8 hours.

**CA British Columbia Provincial (Canada,
6/2022).**

TWA: 1 mg/m³ 8 hours. Form: Inhalable

CA Ontario Provincial (Canada, 6/2019).

TWA: 1 mg/m³ 8 hours. Form: Inhalable
particulate matter.

**CA Quebec Provincial (Canada, 6/2022).
[Wollastonite]**

TWAEV: 5 mg/m³ 8 hours. Form:
Respirable dust.

TWAEV: 10 mg/m³ 8 hours. Form: Total
dust.

None.

CA Alberta Provincial (Canada, 6/2018).

OEL: 2 mg/m³ 8 hours. Form: Respirable

OEL: 10 mg/m³ 15 minutes. Form:

Respirable

**CA British Columbia Provincial (Canada,
6/2022).**

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

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

CA Quebec Provincial (Canada, 6/2022).

STEV: 10 mg/m³ 15 minutes. Form:
Respirable dust.

TWAEV: 2 mg/m³ 8 hours. Form:

Respirable dust.

CA Ontario Provincial (Canada, 6/2019).

STEL: 10 mg/m³ 15 minutes. Form:

Respirable particulate matter.

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

Wollastonite

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

Section 8. Exposure controls/personal protection

Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate ethylbenzene

particulate matter.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 10 mg/m³ 15 minutes. Form: respirable dust and fume

TWA: 2 mg/m³ 8 hours. Form: respirable dust and fume

None.

None.

CA Alberta Provincial (Canada, 6/2018).

OEL: 543 mg/m³ 15 minutes.

OEL: 125 ppm 15 minutes.

OEL: 434 mg/m³ 8 hours.

OEL: 100 ppm 8 hours.

CA British Columbia Provincial (Canada, 6/2022).

TWA: 20 ppm 8 hours.

CA Ontario Provincial (Canada, 6/2019).

TWA: 20 ppm 8 hours.

CA Quebec Provincial (Canada, 6/2022).

TWAEV: 20 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 125 ppm 15 minutes.

TWA: 100 ppm 8 hours.

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 and face shield.

Skin protection

Section 8. Exposure controls/personal protection

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

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : White.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- 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.
- Evaporation rate** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.54
- Density (lbs / gal)** : 12.85

	Media	Result
Solubility(ies) :	cold water	Not soluble

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

Section 9. Physical and chemical properties

Viscosity	: Kinematic (40°C (104°F)): >21 mm ² /s (>21 cSt)
Volatility	: 30% (v/v), 16.752% (w/w)
% Solid. (w/w)	: 83.248

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.
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	Species	Dose	Exposure
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
barium sulfate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
n-butyl acetate	LC50 Inhalation Vapor	Rat	>21.1 mg/l	4 hours
	LC50 Inhalation Vapor	Rat	2000 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
bis(4-(1,2-bis (ethoxycarbonyl)ethylamino) -3-methylcyclohexyl) methane	LD50 Oral	Rat	10.768 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>4224 mg/l	4 hours
Ketimine heptan-2-one	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	2000 mg/kg	-
bis(1,2,2,6,6-pentamethyl- 4-piperidyl) sebacate	LC50 Inhalation Vapor	Rat	16.7 mg/l	4 hours
	LD50 Dermal	Rabbit	10.206 g/kg	-
	LD50 Oral	Rat	1.6 g/kg	-
zinc oxide	LD50 Oral	Rat	3.125 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5700 mg/m ³	4 hours
Reaction products of	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5.08 mg/l	4 hours

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12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine methyl	LD50 Oral	Rat	3.125 g/kg	-
1,2,2,6,6-pentamethyl-4-piperidyl sebacate ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-

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

Irritation/Corrosion**Conclusion/Summary**

Skin : **Ketimine**: Corrosive to the skin. (OECD 431 *In Vitro* Skin Corrosion: Human Skin Model Test)

Eyes : **Ketimine**: Corrosive to eyes.

Respiratory : There are no data available on the mixture itself.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Ketimine	skin	Mouse	Sensitizing

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Ketimine	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative

Conclusion/Summary : **Ketimine**: Not mutagenic in Ames test.

Carcinogenicity

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

Classification

Product/ingredient name	OSHA	IARC	NTP
titanium dioxide	-	2B	-
Wollastonite	-	3	-
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.

Teratogenicity

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

Specific target organ toxicity (single exposure)

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Name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	-	Narcotic effects
heptan-2-one	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

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

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

Section 11. Toxicological information

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. This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). 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

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 : Suspected of causing 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

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
VERSAFLEX 468 HG WHITE RESIN	8722.6	6328.3	N/A	202.0	18.1
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
Ketimine	2000	N/A	N/A	N/A	N/A
heptan-2-one	1600	10206	N/A	16.7	1.5
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	3125	N/A	N/A	N/A	N/A
zinc oxide	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	Exposure
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
n-butyl acetate	Acute LC50 18 mg/l	Fish	96 hours
bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	Acute EC50 88.6 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute IC50 113 mg/l	Algae - <i>Scenedesmus subspicatus</i>	72 hours
Ketimine	Acute LC50 66 mg/l	Fish - <i>Danio rerio</i>	96 hours
	EC50 25.9 mg/l	Daphnia	48 hours
	LC50 >53.1 mg/l	Fish	96 hours
heptan-2-one	Acute EC50 13 mg/l	Algae	72 hours
zinc oxide	Acute LC50 131 mg/l	Fish	96 hours
	Acute EC50 0.17 mg/l	Algae	72 hours
	Acute EC50 0.481 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine ethylbenzene	Chronic NOEC 0.017 mg/l Fresh water	Algae	72 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - <i>Ceriodaphnia dubia</i>	-

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
n-butyl acetate	TEPA and OECD 301D	83 % - Readily - 28 days	-	-
Ketimine	-	0 % - Not readily - 28 days	-	-
heptan-2-one	OECD 310	69 % - Readily - 28 days	-	-
ethylbenzene	-	79 % - Readily - 10 days	-	-

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-butyl acetate	-	-	Readily
Ketimine	-	-	Not readily
heptan-2-one	-	-	Readily
ethylbenzene	-	-	Readily

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 (K_{oc}) : 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

Section 14. Transport information

Section 14. Transport information

	TDG	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	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	(trizinc bis(orthophosphate))	(trizinc bis(orthophosphate))	Not applicable.

Additional information

- TDG** : The marine pollutant mark is not required when transported by road or rail.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

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

Transport in bulk according to IMO instruments : Not applicable.

Proof of classification statement : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8), 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).

Section 15. Regulatory information**National Inventory List**

Canada inventory (DSL) : All components are listed or exempted.

Section 16. Other information**Hazardous Material Information System (U.S.A.)**

Health : 3 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 3 Instability : 0

Section 16. Other information

Date of issue/Date of revision 25 April 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.

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