SAFETY DATA SHEET



Date of issue/Date of revision

12 February 2019

Version 15

Section 1. Identification

Product name

: SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Product code

: FDGH-1

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.

Use of the substance/

: Coating.

mixture

Uses advised against

: Not applicable.

Manufacturer

PPG Industries, Inc.

One PPG Place,

Emergency telephone

Pittsburgh, PA 15272 (412) 434-4515 (U.S.)

number

(514) 645-1320 (Canada)

01-800-00-21-400 or + 52 55 5559 1588 (Mexico)

Technical Phone Number

(740) 363-9610 (DELAWARE, OH) 8:00 a.m. - 5:00 p.m. EST

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 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1B

TOXIC TO REPRODUCTION (Fertility) - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 1B

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

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

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous

system (CNS)) - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 100% (Oral),

100% (Dermal), 100% (Inhalation)

United States Page: 1/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 2. Hazards identification

This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG 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

Hazard statements

Danger

: Highly flammable liquid and vapor.

Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction.

May cause cancer.

May damage fertility or the unborn child.

May cause respiratory irritation.

May cause drowsiness or dizziness.

Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS))

Precautionary statements

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

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

Storage

: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

United States Page: 2/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 2. Hazards identification

Supplemental label elements

Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: May form explosive peroxides. Hazardous reactions or instability may occur under certain conditions of storage or use. Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Ingredient name	%	CAS number
Feptan-2-one	≥20 - ≤50	110-43-0
titanium dioxide	≥20 - ≤50	13463-67-7
n-butyl acetate	≥20 - ≤50	123-86-4
4-chloro-α,α,α-trifluorotoluene	≥20 - ≤50	98-56-6
chrome antimony titanium buff rutile	≥20 - ≤50	68186-90-3
diiron trioxide	≥10 - ≤20	1309-37-1
acetone	≥10 - ≤20	67-64-1
2-methoxy-1-methylethyl acetate	≥10 - ≤20	108-65-6
Aluminium powder (stabilized)	≥10 - ≤20	7429-90-5
Solvent naphtha (petroleum), heavy arom.	≥5.0 - ≤10	64742-94-5
Ketones, C11	≥5.0 - ≤10	71808-49-6
Solvent naphtha (petroleum), light aromatic	≥5.0 - ≤10	64742-95-6
Talc , not containing asbestiform fibres	≥5.0 - ≤10	14807-96-6
Proprietary naphtha	≥1.0 - ≤5.0	Proprietary
ethyl 3-ethoxypropionate	≥1.0 - ≤5.0	763-69-9
1,2,4-trimethylbenzene	≥1.0 - ≤5.0	95-63-6
butanone	≥1.0 - ≤5.0	78-93-3
pentyl propionate	≥1.0 - ≤5.0	624-54-4
carbon black, respirable powder	≥1.0 - ≤5.0	1333-86-4
Ligroine	≥1.0 - ≤5.0	8032-32-4
Stoddard solvent	≥1.0 - ≤5.0	8052-41-3
5-methylhexan-2-one	≥1.0 - ≤4.1	110-12-3
[1-[[(2-hydroxyphenyl)imino]methyl]-2-naphtholato(2-)-N,O,O]copper	≥1.0 - ≤3.8	15680-42-9
Naphtha (petroleum), hydrodesulfurized heavy	≥1.0 - ≤5.0	64742-82-1
2-ethylhexyl acetate	≥1.0 - ≤5.0	103-09-3
toluene	≥1.0 - ≤5.0	108-88-3
isobutyl acetate	≥1.0 - ≤5.0	110-19-0
xylene	≥1.0 - ≤3.4	1330-20-7
Cashew, nutshell liq., 2-hydroxyethyl ethers	≥1.0 - ≤5.0	232268-65-4
ethyl acetate	≥1.0 - ≤5.0	141-78-6
Isopropyl alcohol	≥1.0 - ≤5.0	67-63-0
Acidic Polyester	≥1.0 - ≤5.0	Not available.
2-butoxyethyl acetate	≤1.8	112-07-2
aluminium hydroxide	≥1.0 - ≤5.0	21645-51-2
Copper Compound	≥1.0 - ≤5.0	Not available.
Salts From Unsaturated Polyamides and Lower Mw Acidic	≥1.0 - ≤5.0	Not available.

United States Page: 3/26

Product code FDGH-1 Date of issue 12 February 2019 Version 15 Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL Section 3. Composition/information on ingredients naphthalene <1.0 91-20-3 ethylbenzene <1.0 100-41-4 n-hexane <1.0 110-54-3 dibutyltin di(acetate) <1.0 1067-33-0

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

cumene

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.

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

<1.0

98-82-8

personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water

or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep

person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness. May cause respiratory irritation.

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

Ingestion : Can cause central nervous system (CNS) depression.

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

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

United States Page: 4/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 4. First aid measures

reduced fetal weight increase in fetal deaths

skeletal malformations

Skin contact

: Adverse symptoms may include the following:

irritation redness dryness cracking

reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion

Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

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

: Highly 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. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

Decomposition products may include the following materials: carbon oxides

nitrogen oxides
phosphorus oxides
halogenated compounds

carbonyl halides metal oxide/oxides

United States

Page: 5/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 5. Fire-fighting measures

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). Water polluting material. May be harmful to the environment if released in large quantities.

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

United States Page: 6/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 7. Handling and storage

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. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions

Ingestion of product or cured coating may be harmful. 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. May form explosive peroxides. Keep away from combustible materials. Avoid shock and friction. Avoid all possible sources of ignition (spark or flame). 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

Do not store above the following temperature: 35°C (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.

United States

Page: 7/26

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
reptan-2-one	ACGIH TLV (United States, 3/2018). TWA: 233 mg/m³ 8 hours.
	TWA: 50 ppm 8 hours. OSHA PEL (United States, 5/2018).
	TWA: 465 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
itanium dioxide	OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours. Form: Total dust
	ACGIH TLV (United States, 3/2018). TWA: 10 mg/m³ 8 hours.

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 8. Exposure controls/personal protection

n-butyl acetate

4-chloro-a,a,a-trifluorotoluene

chrome antimony titanium buff rutile

diiron trioxide

acetone

2-methoxy-1-methylethyl acetate

aluminium powder (stabilised)

Solvent naphtha (petroleum), heavy arom. Ketones, C11 Solvent naphtha (petroleum), light aromatic

Talc , not containing asbestiform fibres

Proprietary naphtha ethyl 3-ethoxypropionate

1,2,4-trimethylbenzene

OSHA PEL (United States, 5/2018).

TWA: 710 mg/m³ 8 hours. TWA: 150 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.

IPEL (PPG). TWA: 25 ppm

OSHA PEL (United States).

TWA: 0.5 mg/m³

TWA: 0.5 mg/m³, (as Sb) Form: Total dust

ACGIH TLV (United States).
TWA: 0.5 mg/m³ Form: Total dust
ACGIH TLV (United States, 3/2018).
TWA: 0.5 mg/m³ (ac. Sh.) 8 hours.

TWA: 0.5 mg/m³, (as Sb) 8 hours.

OSHA PEL (United States, 5/2018). TWA: 0.5 mg/m³, (as Sb) 8 hours.

ACGIH TLV (United States, 3/2018).

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

OSHA PEL (United States, 5/2018).

TWA: 10 mg/m³ 8 hours.

ACGIH TLV (United States, 3/2018).

STEL: 500 ppm 15 minutes. TWA: 250 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 2400 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.

IPEL (PPG, 10/2017). Absorbed through

skin.

TWA: 30 ppm STEL: 90 ppm

ACGIH TLV (United States, 3/2018).

TWA: 1 mg/m³ 8 hours. Form: Respirable

fraction

OSHA PEL (United States, 5/2018).

TWA: 5 mg/m³, (as Al) 8 hours. Form:

Respirable fraction

TWA: 15 mg/m³, (as Al) 8 hours. Form: Total

dust None. None.

None.

ACGIH TLV (United States, 3/2018).

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

OSHA PEL Z3 (United States).

TWA: 2 mg/m³

None.

IPEL (PPG).

TWA: 50 ppm STEL: 100 ppm

ACGIH TLV (United States, 3/2018).

United States

Page: 8/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 8. Exposure controls/personal protection

butanone

pentyl propionate carbon black, respirable powder

Ligroine

Stoddard solvent

5-methylhexan-2-one

[1-[[(2-hydroxyphenyl)imino]methyl]-2-naphtholato(2-)-N,O,O']copper Naphtha (petroleum), hydrodesulfurized heavy 2-ethylhexyl acetate toluene

isobutyl acetate

xylene

TWA: 123 mg/m³ 8 hours.

TWA: 25 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

STEL: 885 mg/m³ 15 minutes. STEL: 300 ppm 15 minutes. TWA: 590 mg/m³ 8 hours. TWA: 200 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 590 mg/m³ 8 hours. TWA: 200 ppm 8 hours.

None.

ACGIH TLV (United States, 3/2018).

TWA: 3 mg/m³ 8 hours. Form: Inhalable

fraction

OSHA PEL (United States, 5/2018).

TWA: 3.5 mg/m³ 8 hours.

None.

ACGIH TLV (United States, 3/2018).

TWA: 525 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 2900 mg/m³ 8 hours. TWA: 500 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

TWA: 93 mg/m³ 8 hours.
TWA: 20 ppm 8 hours.
STEL: 50 ppm 15 minutes.
STEL: 234 mg/m³ 15 minutes.
OSHA PEL (United States, 5/2018).

TWA: 475 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

None. None. None.

OSHA PEL Z2 (United States, 2/2013).

AMP: 500 ppm 10 minutes.

CEIL: 300 ppm

TWA: 200 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

TWA: 20 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 700 mg/m³ 8 hours. TWA: 150 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

OSHA PEL (United States, 5/2018).

United States

Page: 9/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 8. Exposure controls/personal protection

Cashew, nutshell liq., 2-hydroxyethyl ethers ethyl acetate

Isopropyl alcohol

Acidic Polyester 2-butoxyethyl acetate

aluminium hydroxide

Copper Compound

Salts From Unsaturated Polyamides and Lower Mw Acidic naphthalene

ethylbenzene

n-hexane

dibutyltin di(acetate)

cumene

TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

None.

ACGIH TLV (United States, 3/2018).

TWA: 1440 mg/m³ 8 hours. TWA: 400 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 1400 mg/m³ 8 hours. TWA: 400 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours.

None.

ACGIH TLV (United States, 3/2018).

TWA: 20 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

TWA: 1 mg/m³ 8 hours. Form: Respirable

fraction

ACGIH TLV (United States).

TWA: 1 mg/m³

None. None.

ACGIH TLV (United States, 3/2018).

Absorbed through skin.

TWA: 52 mg/m³ 8 hours. TWA: 10 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 50 mg/m³ 8 hours. TWA: 10 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

TWA: 20 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

Absorbed through skin.

TWA: 50 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 1800 mg/m³ 8 hours. TWA: 500 ppm 8 hours.

ACGIH TLV (United States, 3/2018).

Absorbed through skin.

STEL: 0.2 mg/m³, (as Sn) 15 minutes. TWA: 0.1 mg/m³, (as Sn) 8 hours. **OSHA PEL (United States, 5/2018).**

TWA: 0.1 mg/m³, (as Sn) 8 hours.

OSHA PEL (United States). TWA: 0.1 mg/m³, (as Sn)

ACGIH TLV (United States, 3/2018).

United States

Page: 10/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 8. Exposure controls/personal protection

TWA: 50 ppm 8 hours.

OSHA PEL (United States, 5/2018).

Absorbed through skin. TWA: 245 mg/m³ 8 hours. TWA: 50 ppm 8 hours.

Key to abbreviations

= Acceptable Maximum Peak ACGIH American Conference of Governmental Industrial Hygienists.

С F = Fume

IPEL Internal Permissible Exposure Limit OSHA = Occupational Safety and Health Administration.

Ζ OSHA 29 CFR 1910,1200 Subpart Z - Toxic and Hazardous Substances

SR = Respiratory sensitization SS = Skin sensitization STEL

= Potential skin absorption

= Short term Exposure limit values TD = Total dust

= Threshold Limit Value TLV TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

procedures

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

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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 Skin protection

: Chemical splash goggles.

Hand protection

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

Gloves

butyl rubber

United States Page: 11/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 8. Exposure controls/personal protection

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 antistatic 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 : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: -13.89°C (7°F)

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive : Not available.

(flammable) limits

Evaporation rate : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.13 Density (lbs / gal) : 9.43

Solubility Insoluble in the following materials: cold water.

Partition coefficient: n-

octanol/water

Viscosity

: Not available.

: Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)

Volatility : 58% (v/v), 50% (w/w)

% Solid. (w/w) 50.2

Physical property values shown in this section are calculated averages. For specific product information, contact your PPG Sales Representative.

United States Page: 12/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

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

: Decomposition products may include the following materials: carbon monoxide, carbon

dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
reptan-2-one	LC50 Inhalation Vapor	Rat	>16.7 mg/l	4 hours
	LD50 Dermal	Rabbit	10.206 g/kg	
	LD50 Oral	Rat	1.6 g/kg	-
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	-
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	-
	LD50 Oral	Rat	10.768 g/kg	-
4-chloro-α,α,α-trifluorotoluene	LC50 Inhalation Vapor	Rat	33080 mg/m³	4 hours
	LD50 Dermal	Rabbit	>2.7 g/kg	-
	LD50 Oral	Rat	13 g/kg	-
chrome antimony titanium	LD50 Oral	Rat	10 g/kg	-
buff rutile				
diiron trioxide	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Oral	Rat	10 g/kg	_
acetone	LC50 Inhalation Vapor	Rat	76000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	15.8 g/kg	-
	LD50 Oral	Rat	5800 mg/kg	-
2-methoxy-1-methylethyl	LD50 Dermal	Rabbit	>5 g/kg	-
acetate				
	LD50 Oral	Rat	8532 mg/kg	<u>.</u>
aluminium powder (stabilised)	LD50 Oral	Rat	>15900 mg/kg	-
	LD50 Oral	Rat	3.2 g/kg	-
heavy arom.				
Solvent naphtha (petroleum),	LD50 Dermal	Rabbit	3.48 g/kg	=

United States Page: 13/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 11. Toxicological information

In the second	1			
light aromatic	I DEO Orol	Det	0.400 "	
Duamuiatam, marilitis -	LD50 Oral	Rat	8400 mg/kg	•
Proprietary naphtha	LD50 Oral	Rat	>6 g/kg	-
ethyl 3-ethoxypropionate	LD50 Dermal	Rabbit	10 g/kg	-
4041: " "	LD50 Oral	Rat	3200 mg/kg	<u>-</u>
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
	LD50 Oral	Rat	5 g/kg	=
butanone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	=
pentyl propionate	LC50 Inhalation Dusts and mists	Rat	10.07 mg/l	4 hours
	LD50 Dermal	Rabbit	>14 g/kg	-
	LD50 Oral	Rat	>14 g/kg	-
carbon black, respirable	LD50 Dermal	Rabbit	>3 g/kg	-
powder				
	LD50 Oral	Rat	>15400 mg/kg	=
Ligroine	LC50 Inhalation Gas.	Rat	3400 ppm	4 hours
Stoddard solvent	LD50 Oral	Rat	>5 g/kg	=
5-methylhexan-2-one	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Dermal	Rabbit	8.14 g/kg	
1	LD50 Oral	Rat	5657 mg/kg	_
[1-[[(2-hydroxyphenyl)imino]	LC50 Inhalation Dusts and mists	Rat	>1000 mg/m ³	4 hours
methyl]-2-naphtholato(2-)-N,				
O,O'Icopper				
2-ethylhexyl acetate	LD50 Oral	Rat	3 g/kg	
toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	- 10010
	LD50 Oral	Rat	5580 mg/kg	<u></u>
isobutyl acetate	LD50 Dermal	Rabbit	>17400 mg/kg	<u></u>
	LD50 Oral	Rat	13400 mg/kg	
xylene	LD50 Dermal	Rabbit	>1.7 g/kg	
1,3,5,1,5	LD50 Oral	Rat	4.3 g/kg	
ethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	
outly, acotate	LD50 Oral	Rat	5620 mg/kg	
Isopropyl alcohol	LC50 Inhalation Vapor	Rat	72600 mg/m ³	4 hours
isopropyi diconor	LD50 Dermal	Rabbit	12800 mg/kg	4 110015
	LD50 Oral	Rat		
2-butoxyethyl acetate	LD50 Oral	Rabbit	4.396 g/kg	
2 Datoxyctityi acetate	LD50 Oral		1500 mg/kg	
aluminium hydrovido	LD50 Oral	Rat	1800 mg/kg	7
aluminium hydroxide Salts From Unsaturated	LD50 Oral	Rat	>5000 mg/kg	-
Polyamides and Lower Mw	LD30 Olai	Rat	>5 g/kg	-
Acidic				
1	L DEC Dames of	D-1-1-3		
naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	lt. I
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
1.	LD50 Oral	Rat	3.5 g/kg	= :
n-hexane	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LD50 Oral	Rat	15840 mg/kg	÷.
dibutyltin di(acetate)	LD50 Dermal	Rabbit	2318 mg/kg	-
cumene	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	€
	LD50 Oral	Rat	1400 mg/kg	-
	A.			

United States

Page: 14/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 11. Toxicological information

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	0.00	24 hours 500	(e)
				mg	

Conclusion/Summary

Skin

: There are no data available on the mixture itself.

Eyes

There are no data available on the mixture itself.

Respiratory

There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin

There are no data available on the mixture itself.

Respiratory

There are no data available on the mixture itself.

Mutagenicity

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
titanium dioxide	-	2B	-
diiron trioxide	-	3	<u>-</u>
carbon black, respirable	-	2B	±
powder			
toluene	-	3	÷
xylene	-	3	-
Isopropyl alcohol	-	3	*
naphthalene	1-	2B	Reasonably anticipated to be a human carcinogen.
ethylbenzene	-	2B	*
cumene	-	2B	Reasonably anticipated to be a human carcinogen.

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

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
5-methylhexan-2-one	.		Equivocal	Rabbit	Inhalation: 1250 ppm	

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)

United States Page: 15/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 11. Toxicological information

Name	Category
Feptan-2-one	Category 3
n-butyl acetate	Category 3
4-chloro-α,α,α-trifluorotoluene	Category 3
acetone	Category 3
Solvent naphtha (petroleum), heavy arom.	Category 3
Solvent naphtha (petroleum), light aromatic	Category 3
Talc , not containing asbestiform fibres	Category 3
Proprietary naphtha	Category 3
1,2,4-trimethylbenzene	Category 3
butanone	Category 3
Naphtha (petroleum), hydrodesulfurized heavy	Category 3
toluene	Category 3
isobutyl acetate	Category 3
xylene	Category 3
ethyl acetate	Category 3
Isopropyl alcohol	Category 3
Copper Compound	Category 3
n-hexane	Category 3
dibutyltin di(acetate)	Category 1
cumene	Category 3

Specific target organ toxicity (repeated exposure)

Name	Category
Stoddard solvent	Category 1
Naphtha (petroleum), hydrodesulfurized heavy	Category 1
toluene	Category 2
2-butoxyethyl acetate	Category 2
naphthalene	Category 2
ethylbenzene	Category 2
n-hexane	Category 2
dibutyltin di(acetate)	Category 1
cumene	Category 2

Target organs

: Contains material which causes damage to the following organs: brain, central nervous system (CNS), eye, lens or cornea.

Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, the reproductive system, liver, heart, spleen, lymphatic system, peripheral nervous system, gastrointestinal tract, cardiovascular system, upper respiratory tract, immune system, skin, bone marrow, testes.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
Proprietary naphtha	ASPIRATION HAZARD - Category 1
Ligroine	ASPIRATION HAZARD - Category 1
Stoddard solvent	ASPIRATION HAZARD - Category 1
Naphtha (petroleum), hydrodesulfurized heavy	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1
xylene	ASPIRATION HAZARD - Category 1

United States Page: 16/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 11. Toxicological information

ethylbenzene	ASPIRATION HAZARD - Category 1
n-hexane	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact

: Causes serious eye irritation.

Inhalation

: Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness. May cause respiratory irritation.

Skin contact

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

ingestion : Can cause central nervous system (CNS) depression.

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

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact

: Adverse symptoms may include the following:

irritation redness dryness cracking

reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion

Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

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

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 PPG 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.

United States Page: 17/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 11. Toxicological information

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

: There are no data available on the mixture itself.

effects

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

Potential chronic health effects

General

: Causes damage to organs through prolonged or repeated exposure. Prolonged or

Carcinogenicity

: 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.

May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity

: No known significant effects or critical hazards.

Teratogenicity

: May damage the unborn child.

Developmental effects

No known significant effects or critical hazards.

Fertility effects

: May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value	
⊘ ral	13233.7 mg/kg	
Dermal	41905.9 mg/kg	
Inhalation (gases)	74214.8 ppm	
Inhalation (vapors)	56.58 mg/l	
Inhalation (dusts and mists)	7.51 mg/l	

Section 12. Ecological information

Toxicity

United States Page: 18/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Feptan-2-one	Acute LC50 131 mg/l	Fish	96 hours
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
diiron trioxide	Acute EC50 >100 mg/l	Daphnia	48 hours
2-methoxy-1-methylethyl acetate	Acute LC50 161 mg/l Fresh water	Fish	96 hours
Solvent naphtha (petroleum), heavy arom.	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
pentyl propionate	Acute LC50 56 mg/l	Fish	96 hours
5-methylhexan-2-one	Acute LC50 159 mg/l	Fish	96 hours
Isopropyl alcohol	Acute EC50 10100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish - Lepomis macrochirus - Young of the year	96 hours
dibutyltin di(acetate)	Acute EC10 3.1 mg/l Acute EC50 0.5 mg/l	Fish Algae	72 hours 72 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
heptan-2-one	OECD 310	69 % - Readily - 28 days	-	-
pentyl propionate		90.1 % - Readily - 28 days	-	- 5
5-methylhexan-2-one	OECD 301D	67 % - Readily - 28 days	=	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
heptan-2-one	-	-	Readily
acetone	-	-	Readily
pentyl propionate		-	Readily
5-methylhexan-2-one	-	-	Readily
toluene	-	-	Readily
xylene	=	-	Readily
ethylbenzene	-	÷:	Readily
dibutyltin di(acetate)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
heptan-2-one	1.98	-	low
n-butyl acetate	1.78	-	low
acetone	-0.24	3	low
2-methoxy-1-methylethyl	0.56	-	low
acetate			
1,2,4-trimethylbenzene	3.63	120.23	low
butanone	0.29	-	low
Stoddard solvent	3.16 to 7.06	-	high
5-methylhexan-2-one	1.88	-	low
toluene	2.73	8.32	low
sobutyl acetate	1.78	1-	low
xylene	3.16	7.4 to 18.5	low
ethyl acetate	0.73	-	low
Isopropyl alcohol	0.05	-	low

United States Page: 19/26

Product code FDGH-1 Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 12. Ecological information

2-butoxyethyl acetate	1.51	-	low
naphthalene	3.3	85.11	low
ethylbenzene	3.15	79.43	low
n-hexane	3.9	-	low
cumene	3.66	35.48	low

Mobility in soil

Soil/water partition coefficient (Koc)

: 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	1263	1263	1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(naphthalene, Solvent naphtha (petroleum), heavy aromatic)	Not applicable.
Product RQ (lbs)	4307.4	Not applicable.	Not applicable.
RQ substances	(xylene, naphthalene)	Not applicable.	Not applicable.

United States Page: 20/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

14. Transport information

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.

Section 15. Regulatory information

United States

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

United States - TSCA 12(b) - Chemical export notification:

4-chloro-α,α,α-trifluorotoluene

One time notification

United States - TSCA 5(a)2 - Final significant new use rules:

2-ethoxyethyl acetate

Listed Listed

2-ethoxyethanol

SARA 302/304

SARA 304 RQ : Not applicable. Composition/information on ingredients

No products were found.

SARA 311/312

Classification

: FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 **CARCINOGENICITY - Category 1B**

TOXIC TO REPRODUCTION (Fertility) - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 1B

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

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

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous

system (CNS)) - Category 1 HNOC - Defatting irritant

HNOC - May form explosive peroxides.

Composition/information on ingredients

United States Page: 21/26

Page: 22/26

United States

Section 15. Regulatory information

Name	%	Classification
heptan-2-one	≥20 - ≤50	FLAMMABLE LIQUIDS - Category 3
A STATE OF THE STA		ACUTE TOXICITY (oral) - Category 4
		ACUTE TOXICITY (inhalation) - Category 4
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
	ľ	(Narcotic effects) - Category 3
		HNOC - Defatting irritant
titanium dioxide	≥20 - ≤50	CARCINOGENICITY - Category 2
n-butyl acetate	≥20 - ≤50	FLAMMABLE LIQUIDS - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		HNOC - Defatting irritant
4-chloro-α,α,α-trifluorotoluene	≥20 - ≤50	FLAMMABLE LIQUIDS - Category 3
		SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
		HNOC - Defatting irritant
acetone	≥10 - ≤20	FLAMMABLE LIQUIDS - Category 2
d .		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
Cabrant nambth - (natalanna)	5.50 440	HNOC - Defatting irritant
Solvent naphtha (petroleum),	≥5.0 - ≤10	FLAMMABLE LIQUIDS - Category 4
heavy arom.		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		ASPIRATION HAZARD - Category 1
Ketones, C11	≥5.0 - ≤10	HNOC - Defatting irritant
Retories, CTT	≥5.0 - ≤10	SKIN IRRITATION - Category 2
	1	EYE IRRITATION - Category 2A
Solvent naphtha (petroleum),	≥5.0 - ≤10	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 3
light aromatic	25.0 - 210	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
Ingrit di ornatio		(Respiratory tract irritation) - Category 3
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant
Talc , not containing asbestiform	≥5.0 - ≤10	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
fibres		(Respiratory tract irritation) - Category 3
Proprietary naphtha	Proprietary	FLAMMABLE LIQUIDS - Category 4
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
		ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant
ethyl 3-ethoxypropionate	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 3
		HNOC - May form explosive peroxides.
		HNOC - Defatting irritant
1,2,4-trimethylbenzene	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 3
		ACUTE TOXICITY (inhalation) - Category 4
		SKIN IRRITATION - Category 2
	l	

Date of issue 12 February 2019 Version 15

Page: 23/26

United States

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 15. Regulatory information

		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
		HNOC - Defatting irritant
butanone	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 2
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		HNOC - Defatting irritant
pentyl propionate	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 3
porny proprenate	-7.0 -0.0	HNOC - Defatting irritant
carbon black, respirable powder	≥1.0 - ≤5.0	COMBUSTIBLE DUSTS
Carbon black, respirable powder	21.0 - 25.0	CARCINOGENICITY - Category 2
Ligroine	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 2
Ligionie	21.0 - 25.0	ACUTE TOXICITY (inhalation) - Category 4
		EYE IRRITATION - Category 2A
		ASPIRATION HAZARD - Category 1
Ct-dd-ud s-bt	10 150	HNOC - Defatting irritant
Stoddard solvent	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 3
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) (central nervous system (CNS)) - Category 1
		ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant
5-methylhexan-2-one	≥1.0 - ≤4.1	FLAMMABLE LIQUIDS - Category 3
		ACUTE TOXICITY (inhalation) - Category 4
		TOXIC TO REPRODUCTION (Unborn child) (inhalation) -
		Category 2
		HNOC - Defatting irritant
[1-[[(2-hydroxyphenyl)imino]	≥1.0 - ≤3.8	COMBUSTIBLE DUSTS
methyl]-2-naphtholato(2-)-N,O,		ACUTE TOXICITY (inhalation) - Category 4
O']copper		, , , ,
Naphtha (petroleum),	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 4
hydrodesulfurized heavy		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
1		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) (central nervous system (CNS)) - Category 1
All controls and a second		ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant
2-ethylhexyl acetate	≥1.0 - ≤5.0	SKIN IRRITATION - Category 2
toluene	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 2
tolderie	21.0 - 35.0	SKIN IRRITATION - Category 2
		TOXIC TO REPRODUCTION (Unborn child) - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
1		(Narcotic effects) - Category 3
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) - Category 2
		ASPIRATION HAZARD - Category 1
1	1	HNOC - Defatting irritant
isobutyl acetate	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
	1	HNOC - Defatting irritant
		<u> </u>

Page: 24/26

United States

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 15. Regulatory information

Ludana	510 <21	ELAMMADI E LIQUIDO Cotoron 2
xylene	≥1.0 - ≤3.4	FLAMMABLE LIQUIDS - Category 3
		ACUTE TOXICITY (dermal) - Category 4
		ACUTE TOXICITY (inhalation) - Category 4
		SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
		ASPIRATION HAZARD - Category 1
Cashew, nutshell liq.,	≥1.0 - ≤5.0	ACUTE TOXICITY (dermal) - Category 4
2-hydroxyethyl ethers		EYE IRRITATION - Category 2A
2 Hydroxydaryr dallord		SKIN SENSITIZATION - Category 1B
othyl acotato	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 2
ethyl acetate	21.0 - 25.0	
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		HNOC - Defatting irritant
Isopropyl alcohol	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 2
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
Acidic Polyester	≥1.0 - ≤5.0	EYE IRRITATION - Category 2A
2-butoxyethyl acetate	≤1.8	FLAMMABLE LIQUIDS - Category 4
2-batoxyctryr doctate	1.0	ACUTE TOXICITY (oral) - Category 4
		ACUTE TOXICITY (dermal) - Category 4
		ACUTE TOXICITY (inhalation) - Category 4
(1)		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) - Category 2
Copper Compound	≥1.0 - ≤5.0	COMBUSTIBLE DUSTS
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
Salts From Unsaturated	≥1.0 - ≤5.0	SKIN IRRITATION - Category 2
Polyamides and Lower Mw		,
Acidic		
naphthalene	<1.0	FLAMMABLE SOLIDS - Category 2
Tiapitulaiene	1.0	
		ACUTE TOXICITY (oral) - Category 4
		CARCINOGENICITY - Category 1B
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) - Category 2
ethylbenzene	<1.0	FLAMMABLE LIQUIDS - Category 2
		ACUTE TOXICITY (inhalation) - Category 4
		CARCINOGENICITY - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) (hearing organs) - Category 2
		ASPIRATION HAZARD - Category 1
h == -	44.0	HNOC - Defatting irritant
n-hexane	<1.0	FLAMMABLE LIQUIDS - Category 2
		SKIN IRRITATION - Category 2
		TOXIC TO REPRODUCTION (Fertility) - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) - Category 2
1		1

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 15. Regulatory information

	1	ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant
dibutyltin di(acetate)	<1.0	SKIN CORROSION - Category 1
and any	1.0	SERIOUS EYE DAMAGE - Category 1
		SKIN SENSITIZATION - Category 1B
		GERM CELL MUTAGENICITY - Category 2
		TOXIC TO REPRODUCTION (Fertility) (oral) - Category 1B
II.		TOXIC TO REPRODUCTION (Pertility) (drait) - Category 1B
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) -
		,
		Category 1
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(thymus) (oral) - Category 1
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) - Category 1
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) (thymus) (oral) - Category 1
cumene	<1.0	FLAMMABLE LIQUIDS - Category 3
		ACUTE TOXICITY (oral) - Category 4
		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
		HNOC - Defatting irritant
		t

SARA 313

Supplier notification	chrome antimony titanium buff rutile Aluminium powder (stabilized) 1,2,4-trimethylbenzene [1-[[(2-hydroxyphenyl)imino]methyl]-2-naphthola		Concentration 10 - 30 10 - 30 7 - 13 1 - 5 1 - 5
	(2-)-N,O,O']copper toluene xylene Zinc Phosphate Compound 2-butoxyethyl acetate naphthalene ethylbenzene	108-88-3 1330-20-7 Not available. 112-07-2 91-20-3 100-41-4	1 - 5 1 - 5 0.5 - 1.5 0.5 - 1.5 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

MARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

United States Page: 25/26

Date of issue 12 February 2019 Version 15

Product name SINGLE STAGE HIGH SOLIDS POLYURETHANE ENAMEL

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * Flammability : 3 Physical hazards : 1

(*) - 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: 2 Flammability: 3 Instability: 1

Date of previous issue : 12/23/2018

Organization that prepared : EHS

the MSDS

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)

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.

United States Page: 26/26