

SAFETY DATA SHEET



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

Date of issue/Date of revision 22 March 2024

Version 2.02

Section 1. Identification

Product name : HI TEMP 1000 SIGNAL RED RAL 3001

Product code : 00435768

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 IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - 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 skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause cancer.
May cause damage to organs through prolonged or repeated exposure. (hearing organs)
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. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling.

Response

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

Storage

: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal

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

Supplemental label elements

: Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. 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. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated. DANGER - RAGS, STEEL WOOL OR WASTE SOAKED WITH THIS PRODUCT MAY SPONTANEOUSLY CATCH FIRE IF IMPROPERLY DISCARDED. IMMEDIATELY AFTER EACH USE, PLACE RAGS, STEEL WOOL OR WASTE IN

Section 2. Hazard identification

A SEALED WATER-FILLED METAL CONTAINER.

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity:
37.2% (oral), 51.3% (dermal), 41.3% (inhalation)

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Product name : HI TEMP 1000 SIGNAL RED RAL 3001
Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	Synonyms	% (w/w)	CAS number
dimethyl carbonate	Carbonic acid, dimethyl ester; METHYL CARBONATE	10 - 30*	616-38-6
xylene	Benzene, dimethyl-; Xylol; Benzene, dimethyl-, mixed isomers; xylene, mixed isomers, pure; xylene, crude; Benzene, dimethyl-; Xylene (mixed); xylene (total); Xylenes; Dimethylbenzene; XYLENES (Isomer Mixture)	7 - 13*	1330-20-7
cadmium sulfoselenide orange	C.I. Pigment Orange 20; C.I. 77202; Cadmium orange pigment; C.I. 77196; CADMIUM ORANGE; CADMIUM - SELENIUM	5 - 10*	12656-57-4
cadmium sulfoselenide red	C.I. Pigment Red 108; Cadmium red; C.I. 77202; Pigment Red 108; Cadmium sulfoselenide; Cadmium sulfoselenide, red; C.I. Pigment Red 108 Cadmium sulfoselenide red	5 - 10*	58339-34-7
Talc , not containing asbestiform fibres	Talc; magnesium silicate monohydrate (talc) not containing asbestiform fibres	3 - 7*	14807-96-6
Wollastonite	Calcium silicate; calcium silicate, naturally occurring as wollastonite; Wollastonite (Ca (SiO3)); Fibres-Natural Mineral Fibres, Wollastonite; Aedelforsite; CALCIUM METASILICATES; wollastonite dust; wollastonie; calcium,dioxido(oxo)silane	3 - 7*	13983-17-0
Mica-group minerals	Mica group minerals; Dimonite; mica; Micatex; Minerals, mica group; Silicate, mica; Silicates (less than 1 % crystalline silica) Mica; Silicates, Mica; Zimmwaldite; Roscoelite; Phlogopite	1 - 5*	12001-26-2
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	1 - 5*	100-41-4

Section 3. Composition/information on ingredients

titanium dioxide	more than 18 % by weight of ethylbenzene (CAS RN 100-41-4); EB; Mono-(or di-) methyl (ethyl,bromoallyl, bromopropoxyloxycarbonyl orchloropropoxyloxycarbonyl) benzene 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	0.5 - 1.5*	13463-67-7
crystalline silica, respirable powder (<10 microns)	alpha-quartz; Silica, crystalline (quartz); Silica, Crystalline Quartz; SILICA, CRYSTALLINE, QUARTZ; Silica-Crystalline, Quartz; Silica - Crystalline Quartz; Silica-Crystalline : Quartz; Silica, crystalline - quartz	0.1 - 1*	14808-60-7

*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** : 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 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

Section 4. First-aid measures

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- 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
sulfur oxides
metal oxide/oxides
Formaldehyde.

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).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition

Section 7. Handling and storage

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. Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. 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
 dimethyl carbonate xylene	None. CA Alberta Provincial (Canada, 6/2018). [Dimethylbenzene (o,m & p isomers)] OEL: 651 mg/m ³ 15 minutes. OEL: 150 ppm 15 minutes. OEL: 434 mg/m ³ 8 hours. OEL: 100 ppm 8 hours. CA British Columbia Provincial (Canada, 6/2022). [Xylene (o, m & p isomers)] STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. CA Quebec Provincial (Canada, 6/2022). [Xylene (o-,m-,p- isomers)] STEV: 651 mg/m ³ 15 minutes. STEV: 150 ppm 15 minutes. TWAEV: 434 mg/m ³ 8 hours. TWAEV: 100 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019).

Section 8. Exposure controls/personal protection

cadmium sulfoselenide orange

[Xylene (o-, m-, p-isomers)]

STEL: 150 ppm 15 minutes.

TWA: 100 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013). [Xylene (o, m-, p-isomers)]

STEL: 150 ppm 15 minutes.

TWA: 100 ppm 8 hours.

CA Alberta Provincial (Canada, 6/2018). [Cadmium compounds as Cd, respirable]

OEL: 0.002 mg/m³, (as Cd) 8 hours. Form: Respirable

CA British Columbia Provincial (Canada, 6/2022). [Cadmium and compounds as Cd; Respirable]

TWA: 0.002 mg/m³, (as Cd) 8 hours. Form: Respirable

TWA: 0.01 mg/m³, (as Cd) 8 hours.

CA Ontario Provincial (Canada, 6/2019). [Cadmium compounds as Cd]

TWA: 0.002 mg/m³, (as Cd) 8 hours. Form: Respirable particulate matter.

CA Ontario Provincial (Canada, 6/2008).

TWAEV: 0.002 mg/m³, (as Cd) 8 hours.

Form: The notation "respirable" following the name of an agent in this Schedule means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the American Conference of Governmental Industrial Hygienists (ACGIH) particle size-selective criteria; and (b) has the cut point of 4 microns at 50 per cent collective efficiency.

TWAEV: 0.01 mg/m³, (as Cd) 8 hours.

CA Quebec Provincial (Canada, 6/2022). [Cadmium elemental and compounds]

TWAEV: 0.025 mg/m³, (as Cd) 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013). [Cadmium, and compounds as Cd]

STEL: 0.006 mg/m³, (measured as Cd) 15 minutes. Form: respirable fraction

TWA: 0.002 mg/m³, (measured as Cd) 8 hours. Form: respirable fraction

STEL: 0.03 mg/m³, (measured as Cd) 15 minutes. Form: total fraction

TWA: 0.01 mg/m³, (measured as Cd) 8 hours. Form: total fraction

cadmium sulfoselenide red

CA Alberta Provincial (Canada, 6/2018).

[Cadmium compounds as Cd, respirable]

OEL: 0.002 mg/m³, (as Cd) 8 hours. Form: Respirable

CA British Columbia Provincial (Canada,

Section 8. Exposure controls/personal protection

6/2022). [Cadmium and compounds as Cd; Respirable]

TWA: 0.002 mg/m³, (as Cd) 8 hours. Form: Respirable

TWA: 0.01 mg/m³, (as Cd) 8 hours.

CA Quebec Provincial (Canada, 6/2022). [Cadmium elemental and compounds]

TWAEV: 0.025 mg/m³, (as Cd) 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013). [Cadmium, and compounds as Cd]

STEL: 0.006 mg/m³, (measured as Cd) 15 minutes. Form: respirable fraction

TWA: 0.002 mg/m³, (measured as Cd) 8 hours. Form: respirable fraction

STEL: 0.03 mg/m³, (measured as Cd) 15 minutes. Form: total fraction

TWA: 0.01 mg/m³, (measured as Cd) 8 hours. Form: total fraction

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

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

CA Ontario Provincial (Canada).

TWA: 2 ppb Form: Respirable

CA Quebec Provincial (Canada, 6/2022).

TWAEV: 2 mg/m³ 8 hours. Form: Respirable dust.

CA Alberta Provincial (Canada, 6/2018).

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

CA Ontario Provincial (Canada, 6/2019).

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

CA Saskatchewan Provincial (Canada, 7/2013).

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

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.

CA Alberta Provincial (Canada, 6/2018).

OEL: 3 mg/m³ 8 hours. Form: Respirable

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

TWA: 3 mg/m³ 8 hours. Form: Respirable

Talc , not containing asbestiform fibres

Wollastonite

Mica-group minerals

Section 8. Exposure controls/personal protection

ethylbenzene

CA Quebec Provincial (Canada, 6/2022).

TWAEV: 3 mg/m³ 8 hours. Form:

Respirable dust.

CA Ontario Provincial (Canada, 6/2019).

TWA: 3 mg/m³ 8 hours. Form: Respirable particulate matter.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 6 mg/m³ 15 minutes. Form: respirable fraction

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

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.

titanium dioxide

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

CA Quebec Provincial (Canada, 6/2022).

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

CA Alberta Provincial (Canada, 6/2018).

Skin sensitizer.

OEL: 10 mg/m³ 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 20 mg/m³ 15 minutes.

TWA: 10 mg/m³ 8 hours.

CA Ontario Provincial (Canada, 6/2019).

TWA: 10 mg/m³ 8 hours. Form: total dust

crystalline silica, respirable powder (<10 microns)

CA British Columbia Provincial (Canada, 6/2022). [Silica, Crystalline - alpha quartz and Cristobalite Respirable]

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

CA Ontario Provincial (Canada, 6/2019). [Silica, Crystalline (Quartz/Tripoli)]

TWA: 0.1 mg/m³ 8 hours. Form: Respirable

CA Quebec Provincial (Canada, 6/2022). [Silica Crystalline -Quartz]

Section 8. Exposure controls/personal protection

TWAEV: 0.1 mg/m³ 8 hours. Form:
Respirable dust.

CA Alberta Provincial (Canada, 6/2018).

OEL: 0.025 mg/m³ 8 hours. Form:
Respirable particulate

CA Saskatchewan Provincial (Canada, 7/2013).

TWA: 0.05 mg/m³ 8 hours. Form:
respirable fraction

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles.

Skin protection

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

Gloves : For prolonged or repeated handling, use the following type of gloves:

Not recommended: nitrile rubber

Recommended: polyvinyl alcohol (PVA), Viton®

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.

Section 8. Exposure controls/personal protection

- 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** : Red.
- Odor** : Hydrocarbon.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 24°C (75.2°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** : 1.45
- Density (lbs / gal)** : 12.1

Solubility(ies) :

Media	Result
cold water	Not soluble

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

- Viscosity** : Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)
- Volatility** : 61% (v/v), 40.981% (w/w)
- % Solid. (w/w)** : 59.019

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.

Section 10. Stability and reactivity

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 sulfur oxides Formaldehyde. metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
dimethyl carbonate	LC50 Inhalation Vapor	Rat	140000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	2.5 g/kg	-
	LD50 Oral	Rat	12.9 g/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
cadmium sulfoselenide orange	LD50 Oral	Rat	>5000 mg/kg	-
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	-
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	-

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	-	24 hours 500 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

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

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
xylene	-	3	-
cadmium sulfoselenide orange	-	1	Known to be a human carcinogen.
cadmium sulfoselenide red	-	1	Known to be a human carcinogen.
Wollastonite	-	3	-
ethylbenzene	-	2B	-
titanium dioxide	-	2B	-
crystalline silica, respirable powder (<10 microns)	+	1	Known 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

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)

Name	Category	Route of exposure	Target organs
dimethyl carbonate	Category 3	-	Respiratory tract irritation
xylene	Category 3	-	Respiratory tract irritation
Talc , not containing asbestiform fibres	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
crystalline silica, respirable powder (<10 microns)	Category 1	inhalation	-

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

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : May cause respiratory irritation.

Skin contact : Causes skin irritation. Defatting to the skin.

Section 11. Toxicological information

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

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

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

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

Ingestion : No specific data.

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

Conclusion/Summary : There are no data available on the mixture itself. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. 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.

Section 11. Toxicological information

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

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

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

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
HI TEMP 1000 SIGNAL RED RAL 3001	17758.0	2859.1	N/A	47.8	6.0
dimethyl carbonate	12900	2500	N/A	140	N/A
xylene	4300	1700	N/A	11	1.5
ethylbenzene	3500	17800	N/A	17.8	1.5

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
dimethyl carbonate	Acute LC50 >100 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water	Daphnia Daphnia - <i>Ceriodaphnia dubia</i>	48 hours -
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene	-	79 % - Readily - 10 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
dimethyl carbonate	0.354	-	Low
xylene	3.12	7.4 to 18.5	Low
ethylbenzene	3.6	79.43	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 12. Ecological information

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

	TDG	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

TDG : None identified.

IMDG : None identified.

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.

Product code 00435768

Date of issue 22 March 2024

Version 2.02

Product name HI TEMP 1000 SIGNAL RED RAL 3001

Section 14. Transport information

Proof of classification statement : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).

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 : 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 issue/Date of revision 22 March 2024

Organization that prepared the SDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

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