SAFETY DATA SHEET



Date of issue/Date of revision 29 June 2021 Version 2

Section 1. Identification		
Product code	: 00391942	
Product name	: HI-TEMP 900 CURE	
Product type	: Liquid.	
Relevant identified uses o	f the substance or mixture and uses advised against	
Product use	Coating. Professional applications, Used by spraying.	
Supplier's details	: PPG Industries (Singapore) Pte. Ltd., No. 1 Tuas Basin Close, Singapore 638803. Tel +65 68653737	
Emergency telephone number (with hours of operation)	: CHEMTREC +(65)-31581349 (CCN 17704)	

Section 2. Hazards identification

Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4
	SKIN CORROSION/IRRITATION - Category 1B
	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
	SKIN SENSITISATION - Category 1
	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1

GHS label elements, including precautionary statements

Hazard pictograms	
Signal word	: Danger
Hazard statements	 Fammable liquid and vapour. Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.
Precautionary statements	

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Section 2. Hazards identification

Prevention	: 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 explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid release to the environment. Do not breathe vapour. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
Response	: Collect spillage. IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	: 🛿 tore in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not result in classification	: Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
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CAS number/other identifiers

CAS number	: Not applicable.
EC number	: Mixture.
Ingredient name	

Ingredient name	%	CAS number
amino-functional phenyl methyl silicone resin	50 - 100	1242619-23-3
3-aminopropyltriethoxysilane	10 - <20	919-30-2
Solvent naphtha (petroleum), heavy arom.	1 - <3	64742-94-5
crystalline silica, respirable powder (<10 microns)	1 - <3	14808-60-7
naphthalene	0.1 - <0.3	91-20-3
methanol	0.1 - <0.3	67-56-1

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.

SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	 Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Inhalation	 Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	 Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Ingestion	 If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/	cts. acute and delayed
Potential acute health effe	
Eye contact	Causes serious eye damage.
Inhalation	No known significant effects or critical hazards.
Skin contact	$ ot\!$
Ingestion	Farmful if swallowed. Corrosive to the digestive tract. Causes burns.
<u>Over-exposure signs/sym</u>	<u>ns</u>
Eye contact	Adverse symptoms may include the following: pain watering redness
Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
Ingestion	Adverse symptoms may include the following: stomach pains
Indication of immediate me	al 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)

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Section 5. Firefighting measures

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Flammable liquid and vapour. 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. This material is very 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 metal oxide/oxides Formaldehyde.
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, protect	ive 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised 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 spilt 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. Collect spillage.

Methods and material for containment and cleaning up

Section 6. Accidental release measures

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 the 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 spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling	
Protective measures	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour 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.
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 oxidising 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name		Exposure limits
rystalline silica, respirable powder (<10 microns)		ACGIH TLV (United States, 3/2020). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable
naphthalene		Workplace Safety and Health Act (Singapore, 2/2006). PEL (short term): 79 mg/m ³ 15 minutes. PEL (short term): 15 ppm 15 minutes. PEL (long term): 52 mg/m ³ 8 hours. PEL (long term): 10 ppm 8 hours.
methanol		Workplace Safety and Health Act (Singapore, 2/2006). PEL (short term): 328 mg/m ³ 15 minutes. PEL (short term): 250 ppm 15 minutes. PEL (long term): 262 mg/m ³ 8 hours. PEL (long term): 200 ppm 8 hours.
Recommended monitoring procedures	atmosphere or biological mor of the ventilation or other con protective equipment. Refere standards. Reference to nati	dients with exposure limits, personal, workplace nitoring may be required to determine the effectiveness atrol measures and/or the necessity to use respiratory ence should be made to appropriate monitoring ional guidance documents for methods for the substances will also be required.
Appropriate engineering controls	ventilation or other engineerin contaminants below any reco	lation. Use process enclosures, local exhaust ng controls to keep worker exposure to airborne ommended or statutory limits. The engineering controls ur or dust concentrations below any lower explosive rentilation equipment.
Environmental exposure controls	they comply with the requiren cases, fume scrubbers, filters	work process equipment should be checked to ensure nents of environmental protection legislation. In some s or engineering modifications to the process to reduce emissions to acceptable levels.
Individual protection measur	res	
Hygiene measures	eating, smoking and using th Appropriate techniques shou Contaminated work clothing s	ace thoroughly after handling chemical products, before e lavatory and at the end of the working period. Id be used to remove potentially contaminated clothing. should not be allowed out of the workplace. Wash e reusing. Ensure that eyewash stations and safety kstation location.
Eye/face protection Skin protection	: Chemical splash goggles and	d face shield.

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Section 8. Exposure controls/personal protection

Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves	: nitrile neoprene
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Colour	: Colourless.
Odour	: Characteristic.
рН	insoluble in water.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 29°C (84.2°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: liquid
Vapour pressure	: ⊮ ighest known value: 0.2 kPa (1.9 mm Hg) (at 20°C) (Solvent naphtha (petroleum), heavy arom.).
Relative density	: 1.31
Solubility	: Insoluble in the following materials: cold water.
Auto-ignition temperature	 Lowest known value: 220 to 250°C (428 to 482°F) (Solvent naphtha (petroleum), heavy arom.).
Viscosity	: Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)

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.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides Formaldehyde. metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
3-aminopropyltriethoxysilane	LC50 Inhalation Dusts and mists	Rat	>7.35 mg/l	4 hours
	LD50 Dermal	Rabbit	4 g/kg	-
	LD50 Oral	Rat	1.57 g/kg	-
Solvent naphtha (petroleum),	LC50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
heavy arom.				
	LD50 Oral	Rat	>5 g/kg	-
naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LC50 Inhalation Vapour	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

Irritation/Corrosion

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.
Sensitisation	

••••••	Route of exposure	Species	Result
3-aminopropyltriethoxysilane	skin	Guinea pig	Sensitising

Conclusion/Summary

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Section 11. Toxicological information

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.
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.
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Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom. methanol	Category 3 Category 1	-	Narcotic effects -

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure	: Not available.
Potential acute health effects	
Eye contact	: Causes serious eye damage.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: 🖉 auses severe burns. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: F armful if swallowed. Corrosive to the digestive tract. Causes burns.
Symptoms related to the phy	sical, chemical and toxicological characteristics
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.

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Section 11. Toxicological information

Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains

Delayed and immediate effe	cts	as well as chronic effects from short and long-term exposure
Short term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	1	Not available.
<u>Long term exposure</u>		
Potential immediate effects	1	Not available.
Potential delayed effects	1	Not available.
Potential chronic health eff	ect	<u>s</u>
General	:	May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Reproductive toxicity	:	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1780.35 mg/kg
Dermal	23375.48 mg/kg
Inhalation (vapours)	263.47 mg/l

Other information

Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. 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 vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C/140F. Avoid contact with skin and clothing.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
amino-functional phenyl methyl silicone resin	Chronic NOEC 0.038 mg/l	Algae	72 hours
3-aminopropyltriethoxysilane	Acute LC50 >934 mg/l	Fish	96 hours
	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
methanol	Acute LC50 13 mg/l Fresh water	Fish	96 hours

Persistence/degradability

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

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
amino-functional phenyl methyl silicone resin	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
aminopropyltriethoxysilane		3.4	low
Solvent naphtha (petroleum), heavy arom.	2.8 10 0.5	-	high
naphthalene methanol	3.4 -0.77	85.11	low low
methanoi	-0.77	-	IOW

<u>Mobility in soil</u>	
Soil/water partition coefficient (Koc)	: Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods	: The generation of waste should be avoided or minimised 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. Vapour 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
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Section 13. Disposal considerations

thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	ΙΑΤΑ
UN number	UN3470	UN3470	UN3470
UN proper shipping name	PAINT, CORROSIVE, FLAMMABLE	PAINT, CORROSIVE, FLAMMABLE	PAINT, CORROSIVE, FLAMMABLE
Transport hazard class(es)	8 (3)	8 (3)	8 (3)
Packing group	II	II	II
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(amino-functional phenyl methyl silicone resin, Solvent naphtha (petroleum), heavy aromatic)	Not applicable.

Additional information

- UN : None identified.
- **IMDG** : The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
- **IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

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

Transport in bulk according	1	Not applicable.
to IMO instruments		

Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

International regulations Montreal Protocol Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Section 16. Other information

History

Date of issue/Date of revision	: 29 June 2021
Date of previous issue	: 2/21/2020
Version	: 2
Prepared by	: 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 = Internediate 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.

Notice to reader

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.