SAFETY DATA SHEET



Revision Date 27-Sep-2018 Version 1

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name

Product code

PETTIT HRT HYBRID REACTIVE TECHNOLOGY PREMIUM MULTI-SEASON ANTIFOULING PAINT – BLUE 1121900

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Restrictions on use Paint Read label instructions and SDS

1.3 Details of the supplier of the safety data sheet

Supplier Kop-Coat, Inc. / Pettit Marine Paint Marine Group 36 Pine Street Rockaway, NJ 07866 1-800-221-4466

1.4 Emergency telephone number

Emergency telephone number	Chemtrec: +1 703-527-3887 ex-USA
	Chemtrec: 1-800-424-9300 USA

2. Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910.1200

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Flammable liquids	Category 3

2.2 Label elements

Signal Word Warning

Hazard Statements

Harmful if swallowed Causes skin irritation Causes serious eye irritation Suspected of causing cancer May cause respiratory irritation Flammable liquid and vapor



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/eye protection/face protection Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Keep away from heat/sparks/open flames/hot surfaces. - No smoking Keep container tightly closed Ground/Bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting/equipment Use only non-sparking tools Take precautionary measures against static discharge Keep cool

Precautionary Statements - Response

If exposed or concerned: Get medical advice/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/attention If skin irritation occurs: Get medical advice/attention IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell Rinse mouth In case of fire: Use CO2, dry chemical, or foam to extinguish **Precautionary Statements - Storage** Store locked up

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

2.3. Other Hazards Hazards not otherwise classified (HNOC) Not Applicable

2.4 Other information

Not Applicable

Unknown Acute Toxicity

< 1% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

Substance

<u>Mixture</u>

Chemical Name	CAS No.	Weight-%
Cuprous oxide	1317-39-1	40 - 50
Petroleum distillates, light aromatic	64742-95-6	10 - 20
Zinc oxide	1314-13-2	5 - 10
1,2,4-Trimethylbenzene	95-63-6	5 - 10
Titanium dioxide	13463-67-7	1 - 5
C.I. Pigment Blue 15	147-14-8	1 - 5
Cupric Oxide	1317-38-0	1 - 5
CUMENE	98-82-8	< 1
Ethylbenzene	100-41-4	< 1

The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

4.1 Description of first-aid measures

General advice	General advice For further assistance, contact your local Poison Control Center.			
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Call a poison control center or doctor for treatment advice.			
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Call a poison control center or doctor for treatment advice.			
Inhalation	Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a poison control center or doctor for treatment advice.			
Ingestion	Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately. If a person vomits when lying on his back, place him in the recovery position.			
4.2 Most important symptoms and	effects, both acute and delayed			
Symptoms	See Section 2.2, Label Elements and/or Section 11, Toxicological effects.			
4.3 Indication of any immediate medical attention and special treatment needed				
Notes to physician There is no specific antidote for effects from overexposure to this material. Treat symptomatically.				
5. Fire-Fighting Measures				

5.1 Extinguishing media

Suitable extinguishing media

Foam. Carbon dioxide (CO₂). Dry chemical. Water spray or fog. Water may be used to cool and prevent the rupture of containers that are exposed to the heat from a fire.

Unsuitable Extinguishing Media Water may be unsuitable for extinguishing fires.

5.2 Special hazards arising from the substance or mixture

Special Hazard

Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may travel to areas away from work site before igniting/flashing back to vapor source. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products Possible formation of carbon oxides, nitrogen oxides, and hazardous organic compounds.

Explosion Data

Sensitivity to Mechanical Impact Not sensitive. Sensitivity to Static Discharge Yes.

5.3 Advice for firefighters

Evacuate personnel to safe areas. Move non-burning material, as feasible, to a safe location as soon as possible. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers with flooding quantities of water until well after fire is out. Thoroughly decontaminate all protective equipment after use. DO NOT extinguish a fire resulting from the flow of flammable liquid until the flow of the liquid is effectively shut off. This precaution will help prevent the accumulation of an explosive vapor-air mixture after the initial fire is extinguished.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Refer to protective measures listed in sections 7 and 8. Avoid exceeding of the given occupational exposure limits (see section 8). Personal protection needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the training and the expertise of employees in the area responding to the spill.

6.2 Environmental precautions

Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and materials for containment and cleaning up

Methods for Containment	Dike far ahead of liquid spill for later disposal. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Ground and bond containers when transferring material. Take precautionary measures against static discharges.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	Ensure adequate ventilation. Ground and bond containers when transferring material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product. Use according to package label instructions. Empty containers may retain product residue or vapor. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. No smoking.
Hygiene measures	Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep in properly labeled containers. Keep away from food, drink and animal feedingstuffs. Store in accordance with local regulations.
Materials to Avoid	No materials to be especially mentioned.

8. Exposure controls/personal protection

8.1 Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	British Columbia	Alberta	Quebec	Ontario TWAEV
Cuprous oxide 1317-39-1	TWA: 1 mg/m ³ Cu dust and mist	-				
Zinc oxide 1314-13-2	STEL: 10 mg/m ³ respirable fraction TWA: 2 mg/m ³ respirable fraction	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	TWA: 2 mg/m ³ STEL: 10 mg/m ³	TWA: 2 mg/m ³ STEL: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 2 mg/m ³ STEL: 10 mg/m ³
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust	TWA: 10 mg/m ³ TWA: 3 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³
C.I. Pigment Blue 15 147-14-8	TWA: 1 mg/m ³ Cu dust and mist	-				
Cupric Oxide 1317-38-0	TWA: 1 mg/m ³ Cu dust and mist	-				
CUMENE 98-82-8	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m ³ S*	TWA: 25 ppm STEL: 75 ppm	TWA: 50 ppm TWA: 246 mg/m ³	TWA: 50 ppm TWA: 246 mg/m ³	TWA: 50 ppm
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³	TWA: 20 ppm	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	TWA: 20 ppm

8.2 Appropriate engineering controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

8.3 Individual protection measures, such as personal protective equipment

Eye/Face Protection	Safety glasses with side-shields. If splashes are likely to occur, wear:. Tightly fitting safety goggles. Face-shield.
Skin and body protection	Solvent-resistant gloves. Nitrile rubber. Neoprene gloves. Impervious butyl rubber gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Remove and wash contaminated clothing before re-use. Long sleeved clothing. Protective shoes or boots.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures	See section 7 for more information

9.1 Information on basic physical a			
Physical state	Liquid		
Appearance	No information available	Color	Blue
Odor	Aromatic solvent	Odor Threshold	No information available
<u>Property</u> pH Melting/freezing point	Values_	Remarks • Methods No information available No information available	
Boiling point/boiling range Flash Point	161 °C / 322 °F 46 °C / 115 °F		
Evaporation rate	< 1	Butyl acetate=1	
Flammability (solid, gas)		No information available	
Flammability Limits in Air upper flammability limit lower flammability limit		No information available No information available	
Vapor pressure		No information available	
Vapor density		No information available	
Specific Gravity	1.980		
Water solubility		No information available	
Solubility in other solvents		No information available	
Partition coefficient		No information available	
Autoignition temperature		No information available	
Decomposition temperature Viscosity, kinematic	> 22 mm2/s	No information available	
Viscosity, dynamic	> 22 111112/5	No information available	
Explosive properties Oxidizing Properties		No information available No information available	
9.2 Other information Volatile organic compounds (VOC) content	450 g/L		

9. Physical and chemical properties

16.51 lb/gal

10. Stability and Reactivity

10.1 Reactivity

Density

No dangerous reaction known under conditions of normal use

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to Avoid

Keep away from heat, sparks and flames.

10.5 Incompatible Materials

No materials to be especially mentioned.

10.6 Hazardous Decomposition Products

None under normal use conditions. Thermal decomposition can lead to release of irritating gases and vapors.

11. Toxicological information

11.1 Acute toxicity

Numerical measures of toxicity: Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Unknown Acute Toxicity	< 1% of the mixture consists of ingredient(s) of unknown toxicity
Oral LD50	964.00 mg/kg
Dermal LD50	11,005.00 mg/kg
LC50 (Dust/Mist)	57.00 mg/l
LC50 (Vapor)	267.00 mg/l

Numerical measures of toxicity: Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cuprous oxide 1317-39-1	470 mg/kg (Rat)	> 2000 mg/kg (Rat)	= 5 mg/L (Rat)4 h
Petroleum distillates, light aromatic 64742-95-6	> 5,000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 3400 ppm (Rat)4 h
Zinc oxide 1314-13-2	5000 mg/kg (Rat)	-	-
1,2,4-Trimethylbenzene 95-63-6	3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m³(Rat)4 h
Titanium dioxide 13463-67-7	10000 mg/kg (Rat)	-	-
CUMENE 98-82-8	1400 mg/kg (Rat)	= 12300 µL/kg (Rabbit)	8700 ppm (Rat) 4-h
Ethylbenzene 100-41-4	3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat)4 h

11.2 Information on toxicological effects

Skin corrosion/irritation

<u>Product Information</u>
No information available
<u>Component Information</u>
No information available

Serious eye damage/eye irritation

Product Information • No information available <u>Component Information</u> • No information available

Respiratory or skin sensitization

Product Information • No information available <u>Component Information</u> • No information available

Germ cell mutagenicity

Product Information • No information available <u>Component Information</u> • No information available

Carcinogenicity

Product Information

• The table below indicates whether each agency has listed any ingredient as a carcinogen

Component Information

· Contains a known or suspected carcinogen

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide	-	Group 2B	-	
13463-67-7				
CUMENE	-	Group 2B	Reasonably Anticipated	
98-82-8		-		
Ethylbenzene	-	Group 2B	-	
100-41-4				

Reproductive toxicity

Product Information
No information available
Component Information
No information available

STOT - single exposure

No information available

STOT - repeated exposure

No information available

Other adverse effects

Product Information • No information available <u>Component Information</u> • No information available

Aspiration hazard

Product Information

No information available

Component Information

No information available

12. Ecological information

12.1 Toxicity

Ecotoxicity

No information available

1.53748 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Ecotoxicity effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Cuprous oxide 1317-39-1	EC50: 96 h Desmodesmus subspicatus 65 mg/L EC50: 96 h Pseudokirchneriella subcapitata 0.021 - 0.037 mg/L EC50: 96 h Pseudokirchneriella subcapitata 0.055 - 0.076 mg/L static	-	EC50: 48 h Daphnia magna 0.51 mg/L
Petroleum distillates, light aromatic 64742-95-6	-	LC50: 96 h Oncorhynchus mykiss 9.22 mg/L	EC50: 48 h Daphnia magna 6.14 mg/L
Zinc oxide 1314-13-2	LC50: 0.136 mg/l	LC50: 0.169 mg/l	-
1,2,4-Trimethylbenzene 95-63-6	-	LC50: 96 h Pimephales promelas 7.19 - 8.28 mg/L flow-through	EC50: 48 h Daphnia magna 6.14 mg/L

1121900 - PETTIT HRT HYBRID REACTIVE TECHNOLOGY PREMIUM MULTI-SEASON ANTIFOULING PAINT – BLUE

CUMENE	EC50: 72 h Pseudokirchneriella	LC50: 96 h Pimephales promelas	EC50: 48 h Daphnia magna 0.6
98-82-8	subcapitata 2.6 mg/L	6.04 - 6.61 mg/L flow-through LC50:	mg/L EC50: 48 h Daphnia magna
		96 h Oncorhynchus mykiss 4.8	7.9 - 14.1 mg/L Static
		mg/L flow-through LC50: 96 h	
		Oncorhynchus mykiss 2.7 mg/L	
		semi-static LC50: 96 h Poecilia	
		reticulata 5.1 mg/L semi-static	
Ethylbenzene	EC50: 72 h Pseudokirchneriella	LC50: 96 h Oncorhynchus mykiss	EC50: 48 h Daphnia magna 1.8 -
100-41-4	subcapitata 4.6 mg/L EC50: 96 h	11.0 - 18.0 mg/L static LC50: 96 h	2.4 mg/L
	Pseudokirchneriella subcapitata 438	Oncorhynchus mykiss 4.2 mg/L	
	mg/L EC50: 72 h	semi-static LC50: 96 h Pimephales	
	Pseudokirchneriella subcapitata 2.6	promelas 7.55 - 11 mg/L	
	- 11.3 mg/L static EC50: 96 h	flow-through LC50: 96 h Lepomis	
	Pseudokirchneriella subcapitata 1.7	macrochirus 32 mg/L static LC50:	
	- 7.6 mg/L static	96 h Pimephales promelas 9.1 -	
		15.6 mg/L static LC50: 96 h Poecilia	
		reticulata 9.6 mg/L static	

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Discharge into the environment must be avoided

Chemical Name	log Pow
1,2,4-Trimethylbenzene	3.63
95-63-6	
C.I. Pigment Blue 15	6.6
147-14-8	
CUMENE	3.55
98-82-8	
Ethylbenzene	3.118
100-41-4	

12.4 Mobility in soil

No information available.

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1 Waste treatment methods

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport Information			
Note	DOT Ground - "Non-bulk shipments may be non-regulated per 49CFR 173.150(f)(2)"		
DOT	Not regulated (If shipped in NON BULK packaging by ground transport)		
MEX	no data available		
IMDG Proper shipping name	UN1263, Paint, 3, III		
IATA Proper shipping name	UN1263, Paint, 3, III		

15. Regulatory information

15.1 International Inventories

TSCA DSL EINECS/ELINCS ENCS IECSC KECL PICCS	Complies - - - - -
-	-
AICS NZIoC	-
KECL PICCS AICS	- - -

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL - Canadian Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

15.2 U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	SARA 313 - Threshold Values %	Weight-%
Cuprous oxide 1317-39-1	1.0	40 - 50
Zinc oxide 1314-13-2	1.0	5 - 10
1,2,4-Trimethylbenzene 95-63-6	1.0	5 - 10
C.I. Pigment Blue 15 147-14-8	1.0	1 - 5
Cupric Oxide 1317-38-0	1.0	1 - 5
Ethylbenzene 100-41-4	0.1	< 1

15.3 Pesticide Information

U.S. EPA Pesticide Information

EPA Pesticide Registration Number 60061-63

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

WARNING. Causes eye irritation. Harmful if absorbed through the skin. May be fatal if swallowed or inhaled.

15.4 U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Titanium dioxide - 13463-67-7	Carcinogen
CUMENE - 98-82-8	Carcinogen
Ethylbenzene - 100-41-4	Carcinogen
Crystalline silica (Quartz) (Respirable) - 14808-60-7	Carcinogen
Cadmium - 7440-43-9	Carcinogen
	Developmental
	Male Reproductive
Lead - 7439-92-1	Carcinogen
	Developmental
	Female Reproductive
	Male Reproductive
Benzene - 71-43-2	Carcinogen
	Developmental
	Male Reproductive
Toluene - 108-88-3	Developmental
	Female Reproductive

16. Other information

NFPA	Health Hazard 2	Flammability 2	Instability 0	Physical and chemical
HMIS	Health Hazard 2*	Flammability 2	Physical Hazard 0	hazards - Personal protection X

Legend:

ACGIH (American Conference of Governmental Industrial Hygienists) Ceiling (C) DOT (Department of Transportation) EPA (Environmental Protection Agency) IARC (International Agency for Research on Cancer) International Air Transport Association (IATA) International Maritime Dangerous Goods (IMDG) NIOSH (National Institute for Occupational Safety and Health) NTP (National Toxicology Program) OSHA (Occupational Safety and Health Administration of the US Department of Labor) PEL (Permissible Exposure Limit) Reportable Quantity (RQ) Skin designation (S*) STEL (Short Term Exposure Limit) TLV® (Threshold Limit Value) TWA (time-weighted average)

Revision Date

27-Sep-2018

Revision Note No information available <u>Disclaimer</u>

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet