Date of Issue: April 1, 2022
Version: 22.1

Product Code: S1-305 HP

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : ePAINT SN-1 HP, Black

Product identity : S1-305-Q HP
S1-305-G HP
S1-305-F HP

Product type : antifouling paint

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

Field of application : boat/ship hulls and shipyards.

Identified uses : Industrial applications,

TSCA : **Unless otherwise stated. All components are listed or exempted.**

1.3 Details of the supplier of the safety data sheet

Company details : ePAINT COMPANY
25 Research Road
East Falmouth, MA 02536
Toll free: (800) 258-5998
Regular phone number: (508) 540-4412
E-mail : epaint@epaint.net

1.4 Emergency telephone number (with hours of operation)

For Transportation Emergencies : (24 hours) CHEMTREC: **1-800-424-9300** (Toll-free in the U.S., Canada and the U.S. Virgin Islands)
If the purchaser of this product is going to be shipping this product to other locations, the purchaser must arrange for its own Emergency Information Provider to respond to transport incidents. ePAINT's 24 hour response contract does not cover non-ePAINT shipments.

For all other information : (8 AM – 5 PM EST) In USA toll free calling available: 1-800-258-5998 or call (508) 540-4412
See Section 4 of the safety data sheet (first aid measures).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Physical state : Liquid.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency treatment : DANGER!

FLAMMABLE LIQUID AND VAPOR. MAY BE FATAL IF INHALED. CAUSES EYE IRRITATION. MAY CAUSE SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Flammable liquid. Very toxic by inhalation. Severely irritating to eyes. Moderately irritating to the skin. Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not get in eyes or on skin or clothing. Contains material that can cause target organ damage. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

SECTION 2: Hazards identification

2.2 Label elements

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

Health	***2**
Fire hazard	**3**
Physical hazards	**0**
Personal protection	**H**

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

Personal Protective Equipment (PPE) shown in this section is a suggestion. Since conditions vary from one work location to another consult the facility safety & health program. Customer or end user is responsible to evaluate worker exposure conditions at the site of application and determine the appropriate PPE suitable for workers at that particular facility or location.

GHS Classification

FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
SKIN SENSITIZATION - Category 1
AQUATIC TOXICITY (ACUTE) - Category 1
AQUATIC TOXICITY (CHRONIC) - Category 1

Hazard pictograms :

Single word :	Warning
Hazard statements :	Flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention :	Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Avoid release to the environment.
Response :	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Storage :	Keep cool.

SECTION 3: Composition/information on ingredients

Product/ ingredient name	Identifiers	%	GHS Classification
zinc oxide	CAS# 1317-39-1	25-50	AQUATIC TOXICITY (ACUTE) - Category 1 AQUATIC TOXICITY (CHRONIC) - Category 1
xylene	CAS# 1330-20-7	10-15	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY: SKIN - Category 4 ACUTE TOXICITY: INHALATION - Category 4 SKIN CORROSION/IRRITATION - Category 2
proprietary acrylic	proprietary	10-15	Not classified
barium sulfate	CAS# 7727-43-7	5-10	Not classified
4,5-dichloro-2-n-octyl-4-isothiazolin-3-one	CAS# 64359-81-5	1-5	ACUTE TOXICITY: ORAL - Category 4 ACUTE TOXICITY: SKIN - Category 4 SKIN CORROSION/IRRITATION - Category 1B SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3 AQUATIC TOXICITY (ACUTE) - Category 1
2-heptanone	CAS# 110-43-0	1-5	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY: INHALATION - Category 4 ACUTE TOXICITY: ORAL - Category 4 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3
solvent naptha (petroleum), heavy arom	CAS# 64742-94-5	1-5	ASPIRATION HAZARD - Category 1 AQUATIC TOXICITY (CHRONIC) - Category 2
ethyl benzene	CAS# 100-41-4	1-3	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY: INHALATION - Category 4

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.

SECTION 4: First aid measures

4.1 Description of first aid measures

General :	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
	If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).
Eye contact:	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. In all cases of doubt, or when symptoms persist, seek 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. Give nothing by mouth. If unconscious, place in recovery position and get medical attention immediately.
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 unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training. 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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact:	May cause eye irritation.
Inhalation:	Harmful by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact:	Irritating to skin. May cause sensitization by skin contact.
Ingestion:	Irritating to mouth, throat and stomach.

Over-exposure signs/ symptoms

Eye contact:	No specific data.
Inhalation:	No specific data.
Skin contact:	Adverse symptoms may include the following: Irritation Redness
Ingestion:	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician:	If gasses have been inhaled, from the decomposition of the product, symptoms may be delayed.
Specific treatments:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Extinguishing media :	Recommended: alcohol resistant foam, CO_2, powders, water spray.
Not to be used:	Waterjet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture :	Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
Hazardous combustion products :	Decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

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. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. 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

6.1 Personal precautions, protective equipment and emergency procedures

Avoid all direct contact with the spilled material. Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.2 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.

6.3 Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. 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). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. No sparking tools should be used. Care should be taken in the selection of protective clothing to ensure that inflammation and irritation of the skin at the neck and wrists through contact with the powder are avoided.

Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations for flammable liquids. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep out of the reach of children. Keep away from: Oxidizing agents, strong alkalis, strong acids. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.
This product may be applied using several application techniques and methods of handling may be different for each. Application techniques include [but are not limited to] brushing, rolling, and spray application [conventional, HPLV, airless, pleural component or aerosol can]. Avoid the breathing of vapors and, if spraying, do not breath spray mist or aerosols.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Product/ ingredient name	Exposure limit values
zinc oxide	**NIOSH REL (United States, 6/2009).** CEIL: 15 mg/m^3 Form: Dust TWA: 5 mg/m^{3}10 hour(s). Form: Dust and fumes STEL: 10 mg/m^3 15 minute(s). Form: Fume **OSHA PEL (United States, 6/2010).** TWA: 5 mg/m^3 8 hour(s). Form: Fume TWA: 5 mg/m^3 8 hour(s). Form: Respirable fraction TWA: 15 mg/m^3 8 hour(s). Form: Total dust **ACGIH TLV (United States, 2/2010).** STEL: 10 mg/m^{3}15 minute(s). Form: Respirable fraction; see Appendix C TWA: 2 mg/m^3 8 hour(s). Form: Respirable fraction; see Appendix C
xylene	**ACGIH TLV (United States, 2/2010).** STEL: 651 mg/m^3 15 minute(s). STEL: 150 ppm 15 minute(s). TWA: 434 mg/m^3 8 hour(s). TWA: 100 ppm 8 hour(s). **OSHA PEL (United States, 6/2010).** TWA: 435 mg/m^3 8 hour(s). TWA: 100 ppm 8 hour(s).
Barium sulfate	**OSHA PEL (United States, 6/2010).** TWA 10mg/m3 (respirable) TWA 30mg/m3 (total dust)
2-heptanone	**ACGIH TLV (United States, 2/2010).** TWA: 50 ppm 8 hour(s). **OSHA PEL (United States, 6/2010).** TWA: 465 mg/m^3 8 hour(s). TWA: 100 ppm 8 hour(s).
solvent naptha (petroleum), heavy arom	**ACGIH TLV (United States, 2/2010).** TWA: Tentative: 25 ppm 8 hour(s).
ethyl benzene	**ACGIH TLV (United States, 2/2010).** STEL: 125 ppm 15 minute(s). TWA: 100 ppm 8 hour(s). **NIOSH REL (United States, 6/2009).** STEL: 545 mg/m^3 15 minute(s). STEL: 125 ppm 15 minute(s). TWA: 435 mg/m^3 10 hour(s). TWA: 100 ppm 10 hour(s). **OSHA PEL (United States, 6/2010).** TWA: 435 mg/m^3 10 hour(s). TWA: 100 ppm 10 hour(s).

Recommended monitoring procedures

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.

8.2 Exposure controls Appropriate engineering controls

Provide local exhaust and general ventilation systems to maintain airborne concentrations below OSHA, ACGIH, and manufacturer recommended exposure limits. Local exhaust ventilation is preferred because it prevents contaminant dispersion into work areas by controlling it at its source. Use local and general exhaust ventilation to effectively remove and prevent buildup of mists/vapors/fumes generated from the handling of this product.

Note: Local exhaust ventilation is designed to capture an emitted contaminant at or near its source, before the contaminant has a chance to disperse into the workplace air. General exhaust ventilation, also called dilution ventilation, is different from local exhaust ventilation because instead of capturing emissions at their source and removing them from the air, general exhaust ventilation allows the contaminant to be emitted into the workplace air and then dilutes the concentration of the contaminant to an acceptable level (e.g., to the PEL or below).

Individual protection measures

General:

Gloves must be worn for all work that may result in soiling.
Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure.

Hygiene measures :

Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Eye/face protection :

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Hand protection :

Wear chemical-resistant gloves in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.

Body protection :

Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type.

Care should be taken in the selection of protective clothing to ensure that inflammation and irritation of the skin at the neck and wrists through contact with the product are avoided.
Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.
Wear suitable protective clothing. Always wear protective clothing when spraying.

Respiratory protection :

If working areas have insufficient ventilation, wear half or totally covering mask equipped with gas filter of type Organic Vapor, when grinding use particle filter of type P95, P99 or P100. When spraying use a combined filter (organic vapor / HEPA or organic vapor / P100 type). Be sure to use approved/certified respirator or equivalent. Always wear an air-fed respirator when spraying in a continuous and prolonged work situation (e.g. hood with supply of fresh or compressed air or a full face, powered air purifying filter).

This product contains low-boiling point liquids. Any respiratory protective equipment should be air-fed.

Protective clothing (pictograms) :

Note: Application of paint products by spraying requires additional safety precautions: Full body suit, Full face respirator with air supplied.

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state :	Liquid
Odor :	Aromatic solvent-like
pH :	Testing not relevant or not possible due to nature of the product.
Melting point/freezing point :	Testing not relevant or not possible due to nature of the product.
Boiling point/ boiling range :	136-160°C
Flash point :	Closed cup: 82°F (27.8°C)
Evaporation rate :	Testing not relevant or not possible due to nature of the product.
Flammability :	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. Flammable in the presence of the following materials or conditions: oxidizing materials and reducing materials.
Upper/lower flammability or Explosive limits :	0.5 -8 vol%
Vapor pressure :	Testing not relevant or not possible due to nature of the product.
Vapor density :	3.5
Relative density :	1.66 g/cm^3
Solubility(ies) :	Partially soluble in the following materials: cold water and hot water.
Partition coefficient (LogKow) :	Testing not relevant or not possible due to nature of the product.
Auto-ignition temperature:	Testing not relevant or not possible due to nature of the product.
Decomposition temperature :	Testing not relevant or not possible due to nature of the product.
Viscosity :	Not determined
Explosive properties :	Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. Explosive in the presence of the following materials or conditions: oxidizing materials and reducing materials.
Oxidizing properties :	Testing not relevant or not possible due to nature of the product.

9.2 Other information

Solvent(s) % by weight :	19.87
Water % by weight :	Weighted average : 0%
VOC content :	390 g/l
TOC content :	Weighted average : 317 g/l
Solvent gas :	Weighted average : 0.082 m^3/l

SECTION 10: Stability and reactivity

10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
The product is stable.

10.3 Possibility of hazardous reactions
Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid
Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials
Highly reactive or incompatible with the following materials: oxidizing materials, reducing materials and acids.
Reactive or incompatible with the following materials: organic materials, alkalis and moisture.

10.6 Hazardous decomposition products
When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:

Decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Exposure to component solvent vapor concentrations 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. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4-heptanone	LD Dermal	Rabbit	>2,000 mg/kg	-
	LD50 Oral	Rat	1600 mg/kg	-
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Dermal	Rabbit	>1700 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
solvent naphtha (petroleum), arom.	LC50 Inhalation Vapor	Rat	>590 mg/m3	4 hours

Acute toxicity estimates

Route	ATE value
Inhalation (gases)	37092.3 ppm
Inhalation (vapors)	300.8 mg/l

SECTION 11: Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
zinc oxide	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
4-heptanone	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
Barytes	Skin - Mild irritant	Human	-	-	-
xylene	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rat	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
solvent naphtha (petroleum), heavy arom.	Skin - Mild irritant	Rabbit	-	-	-

Carcinogen Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
zinc oxide	A4	-	-	-	-	-
xylene	A4	3	-	None.	-	-
Barytes	A1	1	-	None.	-	-
ethylbenzene	A3	2B	-	None.	-	-
4-heptanone	A3	-	-	None.	-	-

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
4,5-dichloro-2-n-octyl -4-isothiazolin-3-one	Category 3	Not determined	Respiratory tract irritation
4-Heptanone	Category 3	Not determined	Respiratory tract irritation

Aspiration hazard

Product/ingredient name	Result
solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential chronic health effects

Sensitization : Contains 4,5-dichloro-2-n-octyl -4-isothiazolin-3-one. May produce an allergic reaction.

Other information : No additional known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Do not allow to enter drains or watercourses. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

When spilled, this product may act as an oil, causing a film, sheen, emulsion, or sludge at or beneath the surface of a body of water. Oils of any kind can cause: (a) drowning of waterfowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility; (b) lethal effect on fish by coating gill surfaces, preventing respiration; (c) potential fish kills resulting from alteration in biochemical oxygen demand; (d) asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom; and (e) adverse aesthetic effects of fouled shoreline and beaches.

SECTION 12: Ecological information

Product/ingredient name	Result	Species	Exposure
zinc oxide	Acute LC50 98 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 1.1 - 2.5 ppm Fresh water	Fish - Oncorhynchus mykiss	96 Hours
	Chronic NOEC 0.4 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
4-heptanone	Acute LC50 505000 - 514000 ug/L Fresh water	Fish - Pimephales promelas - 29 days - 21 mm - 0.141 g	96 hours
xylene	Acute LC50 8500 ug/L Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 8200 - 10032 ug/L Fresh water	Fish - Oncorhynchus mykiss - 0.6 g	96 hours
ethylbenzene	Acute EC50 2930 - 4400 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <=24 hours	48 hours
	Acute LC50 >5200 ug/L Marine water	Crustaceans - Americamysis bahia - <24 hours	48 hours
	Acute LC50 11900 ug/L Fresh water	Fish - Pimephales promelas - 30 days - 0.079g	96 hours
	Chronic NOEC 6800 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Chronic NOEC 3300 ug/L Marine water	Fish - Menidia menidia	96 hours
4,5-dichloro-2-n-octyl -4-3-one	Acute EC50 5.22 - 7 ppb Fresh water	Daphnia - Daphnia magna - <24 hours	48 hours
	Acute LC50 2.7 - 3.3 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours

12.2 Persistence and degradability

No known data available in our database.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
xylene	3.15	6 - 23.4	low
ethylbenzene	6.4	-	low
4,5-dichloro-2-n-octyl-4-isothiazolin- 3-one		-	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : No known data available in our database.

Mobility : No known data available in our database.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.
The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.
Refer to Section 7 and Section 8 for additional handling information and protection of employees.

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. 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.

Packaging

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 14: Transport information

Transport may take place according to national regulation or DOT for transport by road and by train, IMDG for transport by sea, IATA for Air shipment. Refer to specific Danerous Goods Transport requirements under 49CFR, ICAO and IATA.

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.

	14.1 UN no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
DOT Class.	UN1263	PAINT	3	III	Yes.	**ERG : 128**
IMDG Class.	UN1263	PAINT	3	III	Yes.	**Emergencey schedules (EmS) F-E, S-E**
IATA Class.	UN1263	PAINT	3	III	Yes.	

PG*: Packing group
Env.*: Environmental hazards

14.6 Special precautions for user

Not available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

HCS Classification : Flammable liquid.
Highly toxic material
Irritating material
Carcinogen
Target organ effects

U.S. Federal regulations : All components are listed or exempted.

TSCA 4(a) final test rules: naphthalene; 4-Heptanone
TSCA 5(a)2 proposed significant new use rules: n-butyl acrylate
TSCA 8(a) PAIR: naphthalene
TSCA 8(a) IUR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
TSCA 8(d) H and S data reporting: n-butyl acrylate
TSCA 12(b) annual export notification: naphthalene; n-butyl acrylate

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: xylene; ethylbenzene; solvent naphtha (petroleum), heavy arom.; 4,5-dichloro-2-n-octyl -4-isothiazolin-3-one; amorphous silica; acrylic resin; barium sulfate; 4-Heptanone; zinc oxide

SECTION 15: Regulatory information

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: xylene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; ethylbenzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; solvent naphtha (petroleum), heavy arom.: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; 4,5- dichloro-2-n-octyl -4-isothiazolin-3-one: Immediate (acute) health hazard, Delayed (chronic) health hazard; amorphous silica: Immediate (acute) health hazard, Delayed (chronic) health hazard; acrylic resin: Immediate (acute) health hazard, Delayed (chronic) health hazard; barium sulfate: Immediate (acute) health hazard; hydrogenated rosin: Immediate (acute) health hazard; polymerized rosin: Immediate (acute) health hazard; 4-heptanone: Fire hazard, Immediate (acute) health hazard, Delayed (chronic)

health hazard; zinc oxide: Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: zinc oxide; ethylbenzene; naphthalene

Clean Water Act (CWA) 311: xylene; ethylbenzene; naphthalene

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Listed

SARA 313 : SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Form R - Reporting requirements	Product/ingredient name	CAS number	Concentration
	zinc oxide	1314-13-2	25 - 50
	Xylene	1330-20-7	10-20
	4-heptanone	110-43-0	1-5
	Ethylbenzene	100-41-4	0-1

Supplier notification	Product/ingredient name	CAS number	Concentration
	zinc oxide	1314-13-2	25-50
	Xylene	1330-20-7	10 - 20
	4-heptanone	110-43-0	1-5
	Ethylbenzene	100-41-4	0-1

State regulations :

Connecticut Carcinogen Reporting: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: The following components are listed: ZINC OXIDE; XYLENE; ETHYL BENZENE; METHYL AMYL KETONE; BARIUM SULFATE
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: The following components are listed: ZINC OXIDE; XYLENES; BENZENE, DIMETHYL-; ETHYL BENZENE; BENZENE, ETHYL-; METHYL AMYL KETONE; BARIUM SULFATE
New Jersey Spill: None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.
New York Acutely Hazardous Substances: The following components are listed: Xylene (mixed); Ethylbenzene; Hexone
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: The following components are listed: ZINC OXIDE (ZNO); BENZENE, DIMETHYL-; BENZENE, ETHYL-; 4-Heptanone; BARYTES
Rhode Island Hazardous Substances: None of the components are listed.

California Prop. 65 PFF :

WARNING: This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1 % of a chemical known to the State of California to cause birth defects or other reproductive harm.

SECTION 15: Regulatory information

Product/ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
ethylbenzene	Yes.	No.	41 pg/day (ingestion) 54 pg/day (inhalation)	No.
respirable quartz	Yes.	No.	No.	No.
formaldehyde	Yes.	No.	Yes.	No.
cadmium	Yes.	Yes.	0.05 pg/day (inhalation)	Yes.
lead soluble	No.	Yes.	15 pg/day (ingestion)	23 pg/day (ingestion)
ethyl acrylate	Yes.	No.	No.	No.
naphthalene	Yes.	No.	Yes.	No.
quartz (chrystalline, non respirable)	Yes.	No.	No.	No.

International regulations

IMO Anti-fouling System Convention Compliant (AFS/CONF/26)

This product does not contain organotin compounds acting as biocides and complies with the International Convention on the Control of Harmful Anti-fouling Systems on Ships as adopted by IMO October 2001 (IMO document AFS/CONF/26)

Product type : antifouling paint

Manufacturer: ePAINT COMPANY

Product name and/or code : ePAINT SN-1 HP, BLACK S1-305 HP

Colour: Black

Note: This name is shown on the product container.

US EPA Registration No. : 64684-5

Active ingredient(s) : 4,5-dichloro-2-n-octyl -4-isothiazolin-3-one CAS# 64359-81-5

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Remarks : Note: In USA, consult Code of Federal Regulations, Title 29, Labor, Parts 1910 and 1915 concerning occupational safety and health standards and regulations, as well as any other applicable Federal, State or local regulations that apply to safe practices in coating operations.

Warning! If you scrape, sand, or remove old paint, you may release lead dust. LEAD is TOXIC.

Revisions: Existing MSDS revised to new GHS format. Revision Date: April 1, 2022

Abbreviations and acronyms:

ANSI = American National Standards Institute TSCA = Toxic Substances Control Act
OSHA = United States Occupational Health and Safety Administration HCS = Hazardous Communication System
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
NIOSH= National Institutefor Occupational Safety and Health
ACGIH = American Conference of Industrial Hygienists
ATE = Acute Toxicity Estimate
IARC = International Agency of Research on Cancer
EPA = Environmental Protection Agency
NTP = National Toxicology Program
BCF = Bioconcentration Factor

CFR = Code of federal Regulations
DOT = United States Department of Transportation
ERG = Emergency Response Guide
TDG = Transport of Dangerous Goods, Canada
SCT = Transportation & Communications Ministry, Mexico
IMDG = International Maritime Dangerous Goods
IATA = International Air Transport Association
SARA = Superfund Amendments Reauthorization Act
EPCRA = Emergency Planning and Community Right to Know Act

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
AQUATIC TOXICITY (ACUTE) - Category 1	Calculation method
AQUATIC TOXICITY (CHRONIC) - Category 1	Calculation method

Notice to reader

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