

SAFETY DATA SHEET

1. Identification

Product identifier	PINE-O-CIDE II
Other means of identification	
SDS number	548N-09A
Product code	HIL00185
Product registration number	6836-169-1658
Recommended use	Disinfectant/Cleaner
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/I Manufacturer	Distributor information
Manufacturer Company name Address Contact person Telephone number Fax E-mail Emergency telephone #	HILLYARD INDUSTRIES 302 North Fourth St. St. Joseph, MO 64501 Regulatory Affairs (816) 233-1321 (Ext. 8285) (816) 383-8485 regulatoryaffairs@hillyard.com (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure, or accident involving chemicals.)

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Sensitization, skin	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Warning
Hazard statement	Flammable liquid and vapor. May cause an allergic skin reaction. Toxic to aquatic life. Toxic to aquatic life.
Precautionary statement	
Prevention	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. Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/eye protection/face protection.
Response	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Store in a well-ventilated place. Keep cool.

Disposal	Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law in compliance with applicable federal, state and local requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.
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3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Alcohols, C9-11, ethoxylated		68439-46-3	3 - < 5
Isopropyl Alcohol		67-63-0	3 - < 5
Pine oils		8002-09-3	3 - < 5
N-Alkyl (C12-16) –N, N-dimethyl-N-benzylammonium		68424-85-1	1 - < 3
Other components below reportable levels	S		80 - < 90

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures Inhalation Move to fresh air. Call a physician if symptoms develop or persist. Remove contaminated clothing immediately and wash skin with soap and water. In case of Skin contact eczema or other skin disorders: Seek medical attention and take along these instructions. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact present and easy to do. Get medical attention if irritation develops and persists. Rinse mouth. Get medical attention if symptoms occur. Ingestion Direct contact with eyes may cause temporary irritation. May cause an allergic skin reaction. Most important Dermatitis. Rash. symptoms/effects, acute and delayed Indication of immediate Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water medical attention and special immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. treatment needed Symptoms may be delayed. **General information** Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. 5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.
	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.
	Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.
7. Handling and storage	
Precautions for safe handling	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). Do not contaminate water, food or feed by storage or disposal. Pesticide Storage: Open dumping is prohibited. Store in original container in areas inaccessible to children.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Ту	ре	Va	alue	
Isopropyl Alcohol (CAS 67-63-0)	PE	L	98	30 mg/m3	
			40	00 ppm	
US. ACGIH Threshold Li	mit Values				
Components	Ту	ре	Va	alue	
Isopropyl Alcohol (CAS 67-63-0)	ST	EL	40	00 ppm	
,	TV	VA	20)0 ppm	
US. NIOSH: Pocket Guid	le to Chemical Hazard	S			
Components	Ту	pe	Va	alue	
Isopropyl Alcohol (CAS 67-63-0)	ST	EL	12	225 mg/m3	
·			50	00 ppm	
	TV	VA	98	30 mg/m3	
			40	00 ppm	
ogical limit values					
ACGIH Biological Expos	ure Indices				
Components	Value	Determinant	Specimen	Sampling Time	
Isopropyl Alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*	

* - For sampling details, please see the source document.

Appropriate engineering controls	Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures,	such as personal protective equipment
Eye/face protection	Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection Hand protection	Wear appropriate chemical resistant gloves.
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Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

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Appearance	Brown liquid
Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Pine odor
Odor threshold	Not available
рН	6.5 - 9.5 (Concentrate)
Melting point/freezing point	Not available
Initial boiling point and boiling range	208 °F (97.78 °C)
Flash point	105.0 °F (40.6 °C) Tag Closed Cup
Evaporation rate	< 1 Ethyl ether = 1
Flammability (solid, gas)	Not available.
Upper/lower flammability or exp	losive limits
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	17.79 mm Hg
Vapor density	0.698 Air =1
Relative density	0.992 at 77°F
Solubility(ies)	
Solubility (water)	Appreciable
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Other information	
Density	8.26 lb/gal
Percent volatile	93.5 - 94.5 %
VOC (Weight %)	9.1 % CARB VOC 9.1 % EPA VOC

10. Stability and reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity May cause an allergic skin reaction.

Acute toxicity	May cause an allergic skill reaction.		
Product	Species	Test Results	
PINE-O-CIDE II			
Acute			
Inhalation			
LC50	Mouse	9873.418 mg/l, 4 Hours estimated	
Oral			
LD50	Guinea pig	1417.7216 g/kg estimated	
	Mouse	69738.0625 mg/kg estimated	
	Rabbit	105.8947 g/kg estimated	
	Rat	93.0797 g/kg estimated	
* Estimates for product may b	e based on additional component data no	ot shown.	
Skin corrosion/irritation	Prolonged skin contact may cause tem	porary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause ter	nporary irritation.	
Respiratory or skin sensitizatio	n		
Respiratory sensitization	Not a respiratory sensitizer.		
Skin sensitization	May cause an allergic skin reaction.		
Germ cell mutagenicity	No data available to indicate product o mutagenic or genotoxic.	r any components present at greater than 0.1% are	
Carcinogenicity	This product is not considered to be a	carcinogen by IARC, ACGIH, NTP, or OSHA.	
US. OSHA Specifically Regu	ulated Substances (29 CFR 1910.1001-	1050)	
Not listed.			
Reproductive toxicity	This product is not expected to cause r	eproductive or developmental effects.	
Specific target organ toxicity - single exposure	Not classified.		
Specific target organ toxicity - repeated exposure	Not classified.		
Aspiration hazard	Prolonged inhalation may be harmful.		
Chronic effects	Prolonged inhalation may be harmful.		
12. Ecological information	ı		
Ecotoxicity	Toxic to aquatic life with long lasting ef	fects.	

Product		Species	Test Results
PINE-O-CIDE II			
Aquatic			
Crustacea	EC50	Daphnia	139.3135 mg/l, 48 hours estimated
Fish	LC50	Fish	135.9545 mg/l, 96 hours estimated
Components		Species	Test Results
Alcohols, C9-11, ethoxylated	(CAS 68439-46-	-3)	
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	2.9 - 8.5 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	6 - 12 mg/l, 96 hours
N-Alkyl (C12-16) –N, N-dimet	hyl-N-benzylam	monium (CAS 68424-85-1)	
Aquatic Fish	LC50	Striped bass (Morone saxatilis)	10.4 - 19.1 mg/l, 96 hours
* Estimates for product may b	e based on add	itional component data not shown.	
rsistence and degradability	No data is ava	ailable on the degradability of this product.	
baccumulative potential			
bility in soil	No data available.		
ner adverse effects		erse environmental effects (e.g. ozone depl ocrine disruption, global warming potential)	
. Disposal consideration	ns		
posal instructions	Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.		
cal disposal regulations	Dispose in accordance with all applicable regulations.		
zardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.		
iste from residues / unused oducts	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).		
ntaminated packaging	Empty contair Since emptied emptied.	ners should be taken to an approved waste d containers may retain product residue, fol	handling site for recycling or disposal. low label warnings even after container
	promptly after container. Agi Repeat two m landfill or by c instructions for	posal: Nonrefillable container. Do not reuse emptying. Triple rinse as follows: Fill conta- itate vigorously, and dispose of rinsate con- nore times. Then offer for recycling if availal other procedures approved by state and loc or rinsate. If not triple rinsed, these contained n accordance with local, state, and federal	iner ¼ full with water and reclose the sistent with pesticide disposal instruction ole or puncture and dispose in sanitary al authorities. Follow pesticide disposal rs are acute hazardous wastes and mus
. Transport information			

Not regulated as dangerous goods.

Not regulated by DOT in Non-Bulk packages.

General information

PACKAGES 1 GALLON AND SMALLER ARE SHIPPED LIMITED QUANTITY OR ORM-D This material is regulated under IATA and IMDG regulations. Contact manufacturer for shipping instructions.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Not listed. SARA 304 Emergency relea	se notification	
Not regulated.		
	ulated Substances (29 CFR 1910.1001-1050)	
Not listed.	, , , , , , , , , , , , , , , , , , ,	
Superfund Amendments and Re	eauthorization Act of 1986 (SARA)	
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No	
SARA 302 Extremely hazar	dous substance	
Not listed.		
SARA 311/312 Hazardous chemical	No	
SARA 313 (TRI reporting) Not regulated.		
Other federal regulations		
Safe Drinking Water Act (SDWA)	Not regulated.	
FIFRA Information	FIFRA: This product is a U.S. EPA Registered pesticide, EPA Reg. No. 6836-169-1658, 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 (SDS), and for workplace labels of non-pesticide products. The hazard information required on the pesticide label is reproduced here.	
	PRECAUTIONARY STATEMENTS – HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER. CORROSIVE. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. Harmful if swallowed. Avoid contamination of food. Wear protective eyewear (goggles, face shield or safety glasses) protective clothing and rubber gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. PHYSICAL OR CHEMICAL HAZARDS: Combustible. Do not use or store near heat or ope flame. KEEP OUT OF REACH OF CHILDREN	
	FIRST AID: IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
US state regulations		
US. California Controlled S	ubstances. CA Department of Justice (California Health and Safety Code Section 11100)	
Not listed.		
US. Massachusetts RTK - S		
Isopropyl Alcohol (CAS 6		
Isopropyl Alcohol (CAS 6		
Pine oils (CAS 8002-09-3 US. Pennsvlvania Worker a	nd Community Right-to-Know Law	
Isopropyl Alcohol (CAS 6		
US. Rhode Island RTK		
Isopropyl Alcohol (CAS 6	67-63-0)	
US. California Proposition (
California Safe Drinking	Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain	

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region

Inventory name

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	05-18-2015
Version #	01
HMIS® ratings	Health: 2 Flammability: 3 Physical hazard: 0
Disclaimer	No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose, or of any nature are made with respect to the product(s) or information contained in this material safety data sheet. The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate. The buyer or user assumes all risks associated with the use, misuse or disposal of this product. The buyer or user is responsible to comply with all federal, state or local regulations concerning the use, misuse or disposal of these products.