



FIRE RETARDANT  
**WOOD SEAL CLASS A™**

**SAFETY DATA SHEET**

**SECTION 1 PRODUCT & COMPANY INFORMATION**

**1.1 Product Identifier**

<b>Product Name</b>	<b>WOOD SEAL CLASS A™</b>
<b>Brand</b>	Flame Seal Products, Inc.
<b>CAS #</b>	NA

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

<b>Identified uses</b>	Fire retardant liquid for treating porous wood and other cellulosic materials.
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**1.3 Details of the Supplier of the Safety Data Sheet**

<b>Company</b>	Flame Seal Products, Inc. 15200 West Drive Houston, TX 77053 USA
<b>Telephone</b>	713-668-4291
<b>Fax</b>	713-668-1724

**1.4 Emergency telephone number**

<b>Emergency #</b>	<b>800-424-9300</b>
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**SECTION 2 HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**  
Eye irritation Category 2B, Skin irritation Category 3.

**2.2 GHS Label Elements, including precautionary statements**

<b>Hazard Statements</b>	<b>WARNING</b>
H316 : 3	Causes mild skin irritation.
H320 : 2B	Causes eye irritation.

**Precautionary Statements**

P202	Do not handle until all safety precautions have been read and understood.
P264	Wash skin thoroughly if exposed.
P280	Wear eye/face protection.
P281	Use personal protection equipment as required.
P305 + P351 + P338	In case of eye contact: rinse thoroughly with eyelid(s) held open. Remove contact lenses, if worn.
P332 + 313	If skin irritation occurs: get medical advice/attention.
P337 + P313	If eye irritation persists: get medical advice/attention.

**2.3 Other Hazards**

H303	May be harmful if swallowed.
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For the full text of the H-Statements mentioned in this section, see section 16.

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 Substances			
Formula	*Proprietary aminic phosphate polymer in water		30 +/- 5%
	*Proprietary performance additives		10 +/- 5%
	Water		60 +/- 5%
Hazardous Components	CAS #	Category	Concentration
*aminic phosphate polymer	NA	eye irrit 2B, skin irrit, 3	12 +/- 5%
Propan -2-diol (isopropanol)	67-63-0	Flam. Liq. 2, H225Eye Irrit. 2, H319 STOT SE 3, H336	< 1%

\* Components are a Company Trade Secret – Business Confidential. Flame Seal Products Inc. is withholding the specific chemical identity under provision of the OSHA Hazard Communication Rule Trade Secrets (1910.1200(i)(1)). The specific chemical identity will be made available to health professionals in accordance with 29 CFR 1910.1200(i)(1)(2)(3)(4).

**SECTION 4 FIRST AID MEASURES**

4.1 Description of first aid measures	
<b>General advice</b>	Use good industrial hygiene procedures.
<b>If inhaled</b>	Not expected to be an issue in low quantities. Wear respirator rated for organic mist in if adequate ventilation is not available.
<b>In case of skin contact</b>	Wash with soap and plenty of water. If irritation occurs, get medical advice/attention.
<b>In case of eye contact</b>	Flush eyes with plenty of fresh water while holding eyelids open. Remove contact lenses if worn. If eye irritation persists, get medical advice/attention.
<b>If swallowed</b>	Do not induce vomiting. Never give anything by mouth to an unconscious. Flush mouth with water. If conscious give water to further dilute chemical. Exhibits very low toxicity. Consult physician if adverse symptoms occur.
<b>4.2 Most important symptoms and effects, both acute and delayed</b>	The most important known symptoms and effects are described in the labelling (see section 2.2) or in Section 11.
<b>4.3 Indication of any immediate medical attention and special treatment needed</b>	No data available

**SECTION 5 FIRE FIGHTING MEASURES**

<b>5.1 Extinguishing media</b>	Does not sustain combustion per ASM D4206 (use water spray, fog, foam, dry chemicals, CO <sub>2</sub> or other agents as appropriate for material in surrounding fire).
<b>5.2 Special hazards arising from substance or mixture</b>	Heating and/or burning may liberate small amounts of ammonia, oxides of nitrogen and phosphorus.
<b>5.3 Advice for firefighters</b>	Product can produce small flash if container has been heated and/or has been stored long enough for some propan-2-diol (isopropanol) to evolve from the liquid and is then opened in the presence of a fire or ignition source.
<b>5.4 Further information</b>	No data available.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

<b>6.1 Personal precautions, protective equipment and emergency procedures</b>	Use personal protective equipment. Avoid breathing mist. Ensure adequate ventilation. Evacuate personnel from affected area. For personal protection, see Section 8.
<b>6.2 Environmental precautions</b>	Prevent further leakage or spillage, if safe to do so. Keep out of public sewers and waterways.
<b>6.3 Methods and materials for containment and cleaning up.</b>	Confine spilled material and absorb with sand, sawdust, earth or other available solids. Sweep up and place in a suitable container for disposal.
<b>6.4 Reference to other sections</b>	See Section 13 for further disposal info.

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**SECTION 7 HANDLING & STORAGE**

7.1	Precautions for safe handling	Wear appropriate protective equipment. Provide adequate ventilation. See Sections 2.2 and 8.
7.2	Conditions for safe storage, including any incompatibles	Keep container tightly sealed when not in use. Use good industrial practices to avoid spills.
7.3	Specified end use.	Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

**SECTION 8 EXPOSURE CONTROL/PERSONAL PROTECTION**

## 8.1 Control Parameters

## Components

Propan-2-diol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm	NIOSH REL
			980 mg/m <sup>3</sup>	
		ST	500 ppm	NIOSH REL
			1,225 mg/m <sup>3</sup>	
		TWA	400 ppm	OSHA Z-1
			980 mg/m <sup>3</sup>	

## Engineering Controls

Handle in accordance with good industrial and safety practices. Wash hands after handling.

## Personal Protection Equipment

Respiratory Protection (Specify Type) General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

## Protective Gloves

**Material:** Nitrile rubber  
**Break through time:** > 480 min  
**Glove thickness:** 0.38 mm  
**Directive:** DIN EN 374  
**Protective index:** Class 6

## Eye Protection

Protective glasses or goggles in heavy mist areas.

## Other Protective Equipment

Adequate clothing to minimize direct contact with skin.

## Ventilation

## Local Exhaust

Use exhaust fans if necessary to control mist or vapor.

## Mechanical (general)

Normal room ventilation.

## Special

NA

**SECTION 9 PHYSICAL PROPERTIES AND CHEMICAL PROPERTIES**

## 9.1 Information on Basic Physical &amp; Chemical Properties

a)	Appearance	Clear to slightly cloudy liquid	k)	Vapor pressure	No data available
b)	Odor	Slight alcohol	l)	Vapor density	No data available
c)	Odor threshold	NA	m)	Relative density	1.18 - 1.23
d)	pH	2.0 - 3.0	n)	Water solubility	Completely soluble
e)	Melting/freezing point	NA/ ~30 °F	o)	Partition coefficient n-octanol/water	No data available
f)	Initial boiling point	>200 °F	p)	Auto ignition temp	None
g)	Flash point	>200 °F	q)	Decomposition temp	No data available
h)	Evaporation rate	No data available	r)	Viscosity	13 - 20 cP
i)	Flammability	None	s)	Explosive properties	No data available
j)	Upper/lower flamm limits	No data available	t)	Oxidizing properties	No data available

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**SECTION 10 STABILITY & REACTIVITY**

10.1	Reactivity	No data available
10.2	Chemical Stability	Stable under recommended storage conditions. Some settling of solids is normal over time.
10.3	Possibility of hazardous reactions	None known
10.4	Conditions to avoid	Evaporation – Keep container sealed tightly when not in use
10.5	Incompatible materials	Strong bases and alkalis
10.6	Hazardous decomposition products	Phosphorous, nitrogen oxides

**SECTION 11 TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects (Undiluted Chemicals)		
Acute toxicity	LD50 > 5000 mg/kg Conclusion from relevant data.	
Inhalation	Not established. Not expected to be harmful. Use respirator if adequate ventilation is not possible to keep exposure to a minimum in heavy mist areas if spraying. May cause dizziness or drowsiness at extreme exposure levels.	
Dermal	May be irritating with continual contact.	
Skin corrosion/irritation	No data available	
Serious eye damage/eye irritation	May cause moderate eye irritation if exposed.	
Respiratory or skin sensitization	Prolonged exposure may cause skin reddening.	
Germ cell mutagenicity	No data available	
Carcinogenicity		
IARC	No components of this product present at levels $\geq 0.1\%$ is identified as a probable, possible, or confirmed human carcinogen by IARC.	
NTP	No components of this product present at levels $\geq 0.1\%$ is identified as a probable, possible, or confirmed human carcinogen by NTP.	
OSHA	No components of this product present at levels $\geq 0.1\%$ is identified as a probable, possible, or confirmed human carcinogen by OSHA.	
Reproductive toxicity (Ingredients)	Isopropanol	<b>Effects on fertility: Test Type:</b> Two-generation reproduction toxicity study <b>Species:</b> Rat / <b>Application Route:</b> Ingestion / <b>Result:</b> negative <b>Effects on fetal development: Test Type:</b> Embryo-fetal development <b>Species:</b> Rat / <b>Application Route:</b> Ingestion / <b>Result:</b> negative <b>Formaldehyde: Effects on fetal development: Test Type:</b> Embryo-fetal development <b>Species:</b> Rat / <b>Application Route:</b> inhalation (gas) / <b>Result:</b> negative STOT-single exposure / Not classified based on available information.
	Propan-2-ol	<b>Assessment:</b> May cause drowsiness or dizziness. <b>Formaldehyde: Assessment:</b> May cause respiratory irritation. STOT-repeated exposure / Not classified based on available information.
	Formaldehyde	<b>Assessment:</b> No significant health effects observed in animals at concentrations of 250 ppmV/6h/d or less.
Aspiration hazard	No data available.	
Additional Information	None.	

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**SECTION 12 ECOLOGICAL INFORMATION**

<b>12.1 Toxicity (Ingredient)</b>		
<b>Amenic phosphate polymer</b>		No data available
<b>Propan-2-diol</b>	Toxicity to fish	LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l Exposure time: 96 h
	Toxicity to daphnia & other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 24 h
	Toxicity to bacteria	EC50 (Pseudomonas putida): > 1,050 mg/l Exposure time: 16 h
<b>12.2 Persistence &amp; degradability</b>		
<b>Ingredient</b>		
Amenic phosphate polymer		No data available
Propan-2-diol (Biodegradability Result)		Rapidly degradable
<b>12.3 Bioaccumulation potential</b>		
<b>Ingredient</b>		
Amenic phosphate polymer		No data available
Propan-2-diol (Partition coefficient: n-octanol/water)		log Pow: 0.05
<b>12.4 Mobility in soil</b>		
No data available.		
<b>12.5 Results of PBT &amp; vPvP assessment</b>		
Not required. Not conducted.		
<b>12.6 Other adverse effects</b>		
No data available.		

**SECTION 13 DISPOSAL CONSIDERATIONS**

<b>13.1 Waste treatment methods</b>	
<b>Product</b>	Incinerate or evaporate and bury in a suitable land fill where permitted by local regulations- or contact a licensed disposal facility.
<b>Contaminated packaging</b>	Dispose of a unused product.

**SECTION 14 TRANSPORT INFORMATION**

<b>DOT (US)</b>	Not dangerous goods
<b>IMDG</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods

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**SECTION 15 REGULATORY INFORMATION**

SARA 302 Components	No chemicals in this product are subject to the reporting requirements of SARA Title III, section 302.		
SARA 313 Components	This product does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimis) reporting levels established by SARA Title III, section 313.		
SARA 311/312	This product does not contain any SARA 311/312 hazards.		
CERCLA Reportable Quantity	None.		
New Jersey, Pennsylvania, Massachusetts Right to Know Components	Propan-2-diol	CAS # 67-63-0	< 1%
Clean Water Act	Section 311 lists phosphorous as a hazardous substance, which if discharged into or upon water, will present an imminent and substantial danger to public welfare. Spills of $\geq$ 5000 pounds (approx. 50,000 pounds of FSTB) must be reported to the National Response Center @ 1-800-424-8802.		
California Prop. 65 Components	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.		

**SECTION 16 OTHER INFORMATION**

Full text of H-statements referred to under sections 2 and 3

H316 : 3 Cause mild skin irritation.

H320 : 2B Causes eye irritation.

Hazard pictograms not required per Tables 3.2.5, 3.2.5.1, 3.3.5, 3.3.5.1 of the GHS of Classification and Labeling of Chemicals Fifth Revised Edition.

Hazards by conclusion drawn from relevant literature and documentation from similar products.

**HMIS Rating**

Health hazard	1
Chronic health hazard	*
Flammability	0
Physical hazard	0

**NFPA**

Health hazard	0
Fire hazard	0
Reactivity hazard	0

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