




# FIRE RETARDANT LEATHER SEAL C™ CONCENTRATE

## SAFETY DATA SHEET

### SECTION 1 PRODUCT & COMPANY INFORMATION

<b>1.1 Product Identifier</b>	
<b>Product Name</b>	LEATHER SEAL C™ CONCENTRATE
<b>Brand</b>	Flame Seal Products, Inc.
<b>CAS #</b>	NA / mixture
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>	
<b>Identified uses</b>	Fire retardant liquid for treating leather and synthetic fabrics.
<b>1.3 Details of the Supplier of the Safety Data Sheet</b>	
<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
<b>1.4 Emergency telephone number</b>	
<b>Emergency #</b>	800-424-9300

### SECTION 2 HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or mixture</b>	
<b>GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)</b>	
Reproductive toxicity (2), eye irritant (2A)	
For the full text of the H-statements mentioned in this section, see Section 16.	
<b>2.2 GHS Label Elements, including precautionary statements</b>	
<b>Hazard Statements</b>	 <b>WARNING</b>
H319 : 2A	Causes serious eye irritation
H361 : 2	Suspected of damaging fertility or the unborn child.
<b>Precautionary Statements</b>	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands thoroughly after handling.
P280	Wear protective eye/face protection
P281	Use personal protection equipment as required.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contacts, if present and easy to do so continue rinsing.
P308 + P313	If exposed or concerned, get medical advice.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337 +P313	If eye irritation persists: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container using approved waste disposal facility.
<b>2.3 Other Hazards</b>	
H303	May be harmful if swallowed.

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**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

<b>3.1 Substances</b>	Mixture of inorganic salts in water.		
<b>Formula</b>	Mixture of inorganic salts in water.		
<b>Hazardous Components</b>	<b>CAS Registry #</b>	<b>Category</b>	<b>Concentration</b>
Potassium Bromide	7758-02-3	319 : 2	2 - 10%
Boric acid	10043-35-3	repr. : 2B	<2%

**SECTION 4 FIRST AID MEASURES**

<b>4.1 Description of first aid measures</b>	
<b>General advice</b>	Move out of dangerous area. Consult a Physician. Show this Safety Data Sheet to Physician.
<b>If inhaled</b>	May cause irritation to mucous membranes and upper respiratory tract with continuous exposure.
<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 person. Flush mouth with water. If conscious give water to further dilute chemical. Consult physician.
<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>	Not combustible (use water spray, fog, foam, dry chemicals, CO <sup>2</sup> 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 phosphorous, and hydrogen bromide.
<b>5.3 Advice for firefighters</b>	Not combustible. In fire conditions, small amounts of irritating and/or corrosive fumes could be released. In enclosed areas, provide fire fighters with self contained breathing apparatus in positive pressure mode.
<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 drains.
<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.

**SECTION 7 HANDLING & STORAGE**

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

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**SECTION 8 EXPOSURE CONTROL/PERSONAL PROTECTION****8.1 Control Parameters**

<b>Components</b>	No limits known in solution form.	
<b>Engineering Controls</b>	Handle in accordance with good industrial and safety practices. Wash hands after handling.	
<b>Personal Protection Equipment</b>	<b>Respiratory Protection</b> (Specify Type)	For heavy mist exposure, use a NIOSH/MSHA approved respirator suitable for use with organic vapors if proper ventilation cannot be provided.
	<b>Protective Gloves</b>	Wear appropriate gloves as necessary to avoid excessive skin contact (i.e. rubber or neoprene)
	<b>Eye Protection</b>	Protective glasses or goggles in heavy mist areas.
	<b>Other Protective Equipment</b>	Adequate clothing to minimize direct contact with skin.
<b>Ventilation</b>	<b>Local Exhaust</b>	Use exhaust fans if necessary to control mist or vapor.
	<b>Mechanical (General)</b>	Normal room ventilation.
	<b>Special</b>	NA

**SECTION 9 PHYSICAL PROPERTIES AND CHEMICAL PROPERTIES****9.1 Information on Basic Physical & Chemical Properties**

a) <b>Appearance</b>	Clear liquid	k) <b>Vapor pressure</b>	No data available
b) <b>Odor</b>	None	l) <b>Vapor density</b>	No data available
c) <b>Odor threshold</b>	NA	m) <b>Relative density</b>	1.16 - 1.19 g/cm <sup>3</sup>
d) <b>pH</b>	2.5 - 3.5	n) <b>Water solubility</b>	Completely soluble
e) <b>Melting/freezing point</b>	NA/~30 °F	o) <b>Partition coefficient n-octanol/water</b>	No data available
f) <b>Initial boiling point</b>	~212 °F	p) <b>Auto ignition temp</b>	None
g) <b>Flash point</b>	None to boiling	q) <b>Decomposition temp</b>	No data available
h) <b>Evaporation rate</b>	No data available	r) <b>Viscosity</b>	6-12 cP Brookfield
i) <b>Flammability</b>	None	s) <b>Explosive properties</b>	No data available
j) <b>Upper/lower flamm limits</b>	No data available	t) <b>Oxidizing properties</b>	No data available

**SECTION 10 STABILITY & REACTIVITY**

<b>10.1 Reactivity</b>	No data available
<b>10.2 Chemical Stability</b>	Stable under recommended storage conditions
<b>10.3 Possibility of hazardous reactions</b>	None known
<b>10.4 Conditions to avoid</b>	Evaporation – Keep container sealed tightly when not in use
<b>10.5 Incompatible materials</b>	Strong bases and alkalis
<b>10.6 Hazardous decomposition products</b>	Ammonia, nitrous and phosphorous oxides, hydrogen bromide

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**SECTION 11 TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

<b>Acute toxicity</b>	LD50 (rat) > 5000 mg/kg Conclusions drawn from relevant literature and documentation from similar products.
<b>Chronic Toxicity</b>	Repeated skin contact may cause dermatitis. Repeated oral intake of bromides (>9 mg/kg body wt per day) may affect the central nervous system.
<b>Inhalation</b>	May cause irritation to mucous membranes and upper respiratory tract with prolonged exposure. Use respirator if adequate ventilation is not possible to keep exposure to a minimum in heavy mist areas.
<b>Dermal</b>	Not established, not expected to be harmful. May cause minor irritation with continuous contact.
<b>Skin corrosion/irritation</b>	No data available
<b>Serious eye damage/eye irritation</b>	May cause moderate eye irritation if exposed.
<b>Respiratory or skin sensitization</b>	Prolonged exposure may cause skin reddening.
<b>Germ cell mutagenicity</b>	No data available
<b>Carcinogenicity</b>	
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.
<b>Reproductive toxicity (Ingredients)</b>	<b>In animal testing, risk of impaired fertility was shown only after administration of very high doses of Boric Acid.</b>
<b>Specific organ toxicity (single exposure)</b>	No data available
<b>Specific organ toxicity (repeated exposure)</b>	No data available
<b>Aspiration hazard</b>	No data available
<b>Additional Information</b>	RTECS: ED4550000  Toxicity reported for borates in humans: ingestion or absorption may cause nausea, vomiting, diarrhea, abdominal cramps, and erythematous lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma. Death has been reported to occur in infants from less than 5 grams and in adults from 5 to 20 grams. Liver – irregularities – Based on Human Evidence.

**SECTION 12 ECOLOGICAL INFORMATION****12.1 Toxicity**

<b>Toxicity to fish</b>	LC50 – Rainbow Trout – 500 mg/l -96h – Bluegill sunfish - 1000 mg/l -96h
<b>Toxicity to daphnia &amp; other aquatic invertebrates</b>	LC50 – Daphnia Magna (Water flea) – 200 mg/l – 21d EC50 – Daphnia Magna (Water flea) – 500 mg/l -21d Conclusions drawn from relevant literature and documentation form included raw materials.
<b>12.2 Persistence and degradability</b>	No data available
<b>12.3 Bioaccumulation potential</b>	Not likely to occur. Inorganic salts will disassociate into constituent ions and no further biodegradation will occur.
<b>12.4 Mobility in soil</b>	Expected to be mobile because of high solubility.
<b>12.5 Results of PBT and vPvP assessment</b>	Not required. Not conducted.
<b>12.6 Other adverse effects</b>	No data available

**SECTION 13 DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

<b>Product/Waste Disposal Methods</b>	Incinerate or 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.

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**SECTION 14** TRANSPORT INFORMATION

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

**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	Chronic health hazard.
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.
REACH	Boric acid – included in the <b>Candidate</b> List of Substances of Very High Concern (SVHC) according to Regulation (EC) No 1907/2006 (REACH)

**SECTION 16** OTHER INFORMATION

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

H319 : 2A Causes serious eye irritation.

H361 : Repr. 2 Suspected of damaging fertility or the unborn child.

Hazard declaration not required on product label per Table 3.7.1, Note 3 (pg 184) of the GHS Classification and Labeling of Chemicals – Fifth Revised Edition.

**In animal testing, risk of impaired fertility was shown only after administration of very high doses of Boric Acid.**

**For a more complete report on the toxicological and environmental effects of Boron compounds, see the Optibor® Boric Acids SDS.**

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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