



**SECTION 1 PRODUCT & COMPANY INFORMATION**

**1.1 Product Identifier**

Product Name	LSR2™
Brand	Flame Seal Products, Inc.
CAS #	NA

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

Identified uses	Fire retardant liquid for treating leather and synthetic fabrics.
-----------------	---

**1.3 Details of the Supplier of the Safety Data Sheet**

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

**1.4 Emergency telephone number**

Emergency #	800-424-9300
-------------	--------------

**SECTION 2 HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**  
Skin irritant, eye irritant.

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

**WARNING**

**Hazard Statements**

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 Hazards not otherwise classified (HNOC) or not covered by GHS**

None. 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	40 +/- 5%
	*Proprietary, non-toxic, non hazardous performance additives	15 +/- 5%
	Water	40 +/- 5%
<b>Hazardous Components</b>	<b>Classification</b>	<b>Concentration</b>
aminic phosphate polymer	eye, mild skin irritant	40 +/- 5%
Sodium Metaborate Octohydrate	Classification (1272/2008/EC	
CAS# 10555-76-7	>=12.3% (Repr.2:H361d) classification	<2.0%
EC# 231-891-6	>=2% for eye irrit.2:H319 classification	
	Classification (67/548EEC) Xi:R36	

\* 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 labeling (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 <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>	Not combustible (use safety equipment which is suitable for materials in surrounding fire).
<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.

Flame Seal Products, Inc. 15200 West Drive, Houston, TX 77053 USA

www.flameseal.com | 713-668-4291 (office) | 713-668-1724 (fax) | **Emergency No. (Chemtrec): 800-424-9300**

SDS v1.1 | Date : 04/14/2016

This document contains proprietary information of Flame Seal Products, Inc. It is intended solely for the purpose of providing information on the products and services described herein. Such proprietary information may not be used, reproduced or disclosed to any other parties for any other purpose without the expressed written permission of Flame Seal Products, Inc. © indicate U.S. trademarks of Flame Seal Products, Inc.

**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	No occupational exposure limits known in solution form.	
	Engineering Controls	Handle in accordance with good industrial and safety practices. Wash hands after handling.	
	Personal Protection Equipment	Respiratory Protection (Specify Type)	For heavy mist exposure, use a NIOSH/MSHA approved respirator suitable for use with organic vapors if proper ventilation cannot be provided.
		Protective Gloves	Wear impervious gloves as necessary to avoid excessive skin contact (i.e. rubber or neoprene)
		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 & Chemical Properties			
a)	Appearance	Clear liquid	k) Vapor pressure	No data available
b)	Odor	Slight amine	l) Vapor density	No data available
c)	Odor threshold	NA	m) Relative density	1.21 - 1.25
d)	pH	3.5 - 4.5	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	~212 °F	p) Auto ignition temp	None
g)	Flash point	None to boiling	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

**SECTION 10 STABILITY & REACTIVITY**

10.1	Reactivity	No data available
10.2	Chemical Stability	Stable under recommended storage conditions
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

Flame Seal Products, Inc. 15200 West Drive, Houston, TX 77053 USA

www.flameseal.com | 713-668-4291 (office) | 713-668-1724 (fax) | Emergency No. (Chemtrec): 800-424-9300

SDS v1.1 | Date : 04/14/2016

This document contains proprietary information of Flame Seal Products, Inc. It is intended solely for the purpose of providing information on the products and services described herein. Such proprietary information may not be used, reproduced or disclosed to any other parties for any other purpose without the expressed written permission of Flame Seal Products, Inc. © indicate U.S. trademarks of Flame Seal Products, Inc.

**SECTION 11 TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects (Undiluted Chemicals)**

<b>Acute toxicity</b>	LD50 > 5000 mg/kg Conclusion from relevant data.
<b>Inhalation</b>	Not established. Not expected to be harmful. If necessary, use respirator if adequate ventilation is not possible to keep exposure to particulate matter at a minimum in heavy mist areas when spraying.
<b>Dermal</b>	None expected with normal use. Abraded skin may show minor irritation with prolonged 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 to abraded skin may cause irritation.
<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:</b>	Sodium metaborate octahydrate has a specific concentration limit of $\geq 12.3\%$ for toxic reproduction classification (Repr.2:H361d) per CLP Regulation (EC) No 1272/2008.
<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**

<b>12.1 Toxicity</b>	No data available
<b>12.2 Persistence &amp; degradability</b>	No data available
<b>12.3 Bioaccumulation potential</b>	No data available
<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

Flame Seal Products, Inc. 15200 West Drive, Houston, TX 77053 USA

www.flameseal.com | 713-668-4291 (office) | 713-668-1724 (fax) | **Emergency No. (Chemtrec): 800-424-9300**

SDS v1.1 | Date : 04/14/2016

This document contains proprietary information of Flame Seal Products, Inc. It is intended solely for the purpose of providing information on the products and services described herein. Such proprietary information may not be used, reproduced or disclosed to any other parties for any other purpose without the expressed written permission of Flame Seal Products, Inc. © indicate U.S. trademarks of Flame Seal Products, Inc.

**SECTION 14 TRANSPORT INFORMATION**

14.1	UN Number:	Not regulated
14.2	UN Proper Shipping Name:	Not regulated
14.3	Transport Hazard Class:	Not regulated
14.4	Packing Group:	Not regulated
14.5	Environmental Hazards:	Not regulated
14.6	Special precautions:	Not regulated
14.7	Transport in bulk: Annex II of Marpool 73/78 and the IBC Code:	Not regulated

**SECTION 15 REGULATORY INFORMATION**

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

Regulation(EC) No 2037/2000-Substances that deplete the ozone layer:	Not manufactured with and Does not contain any group I or Group II ozone depleting substances.
Clean Air Act (Montreal Protocol) - Substances that deplete the ozone layer:	Not manufactured with and Does not contain any group I or Group II ozone depleting substances.
Regulation (EC) 689/2008 - Export and Import of Dangerous Chemicals:	Not Listed.
REACH -	Product does not contain any materials listed as SVHC according to Regulation (EC) No 1907/2006 (REACH).
CLP Regulation (EC) No 1272/2008 Sodium metaborate octahydrate.	Sodium metaborate octahydrate has a specific concentration limit of $\geq 12.3\%$ for toxic reproduction classification (Repr.2:H361d) per CLP Regulation (EC) No 127/2008. The sodium metaborate octahydrate concentration is $< 1.3\%$ in this product.
Regulation (EU) No 109/2012 - REACH Annex XVII:	Restricted to professional users. Sodium Metaborate Octahydrate is permitted for use in products where it is below the specific concentration limits (12.3%).
National Regulations -	Ensure that all national/regulations are carried out.
USA and Canadian Regulations:	
WHMIS Hazard Class-	None.
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.
New Jersey, Pennsylvania, Massachusetts Right to Know Components	Sodium Metaborate Octohydrate CAS # 35585-58-1 <1%
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.
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.

Flame Seal Products, Inc. 15200 West Drive, Houston, TX 77053 USA

www.flameseal.com | 713-668-4291 (office) | 713-668-1724 (fax) | **Emergency No. (Chemtrec): 800-424-9300**

SDS v1.1 | Date : 04/14/2016

This document contains proprietary information of Flame Seal Products, Inc. It is intended solely for the purpose of providing information on the products and services described herein. Such proprietary information may not be used, reproduced or disclosed to any other parties for any other purpose without the expressed written permission of Flame Seal Products, Inc. © indicate U.S. trademarks of Flame Seal Products, Inc.

**SECTION 16 OTHER INFORMATION**

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

**Sodium Metaborate Octahydrate is not on the Candidate List for SVHC.**

Classified as toxic for reproduction(Repr.2:H361d) at a specific concentration limit >= 12.3% and as an eye irritant (Eye irrit.2H319) at >=2%

Hazard declaration not required on product label per Table 3.7.1, Note 3 of the GHS of Classification and Labeling of Chemicals - Fifth Revised Edition for SMB Levels present in this product.

- H316 : 3** Cause mild skin irritation.
- H320 : 2B** Causes eye irritation.

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

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.

In animal testing, risk of impaired fertility was shown only after administration of very high doses of Boric Acid. To the best of Flame Seal Product’s knowledge, no actual reproductive toxicity testing has been published on Sodium Metaborate. It is included in the same category as Boric Acid because they are in the same chemical family- as is Borax Sodium Metaborate is not on the Candidate List for SVHC.

<b>HMIS Rating</b>	Health hazard	1
	Chronic health hazard	*
	Flammability	0
	Physical hazard	0
<b>NFPA</b>	Health hazard	0
	Fire hazard	0
	Reactivity hazard	0

This information is furnished without warranty, representation, inducement or license of any kind, except that it is accurate to the best of Flame Seal Products, Inc. knowledge, or obtained from sources believed by Flame Seal Products, Inc. to be accurate, and Flame Seal Products, Inc. does not assume any legal responsibility for use or reliance upon same. Customers are encouraged to conduct their own tests. Before using any product, read its label.

**Flame Seal Products, Inc.** 15200 West Drive, Houston, TX 77053 USA  
 www.flameseal.com | 713-668-4291 (office) | 713-668-1724 (fax) | **Emergency No. (Chemtrec): 800-424-9300**

SDS v1.1 | Date : 04/14/2016

This document contains proprietary information of Flame Seal Products, Inc. It is intended solely for the purpose of providing information on the products and services described herein. Such proprietary information may not be used, reproduced or disclosed to any other parties for any other purpose without the expressed written permission of Flame Seal Products, Inc. © indicate U.S. trademarks of Flame Seal Products, Inc.