

## Safety Data Sheet

Prepared in Accordance with HCS 29  
C.F.R. 1910.1200



### 1. Identification of the Substance/Mixture and the Company/Undertaking

- 1.1 Product Identifier** 8131D0 **Revision Date:** 04/11/2024  
**Product Name:** SMOOTH AR FLAME **Supersedes Date:** 08/23/2023  
 RETARDANT
- 1.2 Relevant identified uses of the substance or mixture and uses advised against** Advised against: others than recommended
- 1.3 Details of the supplier of the safety data sheet**
- Manufacturer:** Liquid Elements, Division of StonCor Group, Inc.  
 1000 East Park Avenue  
 Maple Shade, NJ 08052  
 +1 856 7797500 (US)
- Datasheet Produced by:** ehs@stonhard.com
- 1.4 Emergency telephone number:** +1 703-741-5970 - North America  
 +1 800-424-9300  
 +55 11 4349 1359 - South America  
 +52 55 8526 4930 - Central America  
 +44 20 3885 0382 - Middle East, Eastern Europe, Western Europe, and Africa  
 +65 3163 8374 - Asia, South Asia, And Oceania

### 2. Hazard Identification

#### 2.1 Classification of the substance or mixture

This product is not classified as hazardous in accordance with the GHS classification criteria as adopted under national standards.

#### 2.3 Other hazards

No Information

#### Results of PBT and vPvB assessment:

No information

### 3. Composition/Information On Ingredients

#### 3.2 Mixtures

##### Hazardous ingredients

<u>Name According to EEC</u>	<u>EINEC No.</u>	<u>CAS-No.</u>	<u>%</u>	<u>Classifications</u>
tris(2-butoxyethyl) phosphate		78-51-3	2.5 - <10	H302-331 Acute Tox. 3 Inhalation, Acute Tox. 4 Oral

##### CAS-No.

78-51-3

##### M-Factors

**Additional Information:** The text for GHS Hazard Statements shown above (if any) is given in Section 16.

### 4. First-aid Measures

#### 4.1 Description of First Aid Measures

**GENERAL NOTES:** When symptoms persist or in all cases of doubt seek medical advice.

**AFTER INHALATION:** Move to fresh air. Consult a physician after significant exposure.

**AFTER SKIN CONTACT:** Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

**AFTER EYE CONTACT:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

**AFTER INGESTION:** Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Never give anything by mouth to an unconscious person.

#### Self protection of the first aider:

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

No Information

#### 4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

### 5. Fire-fighting Measures

#### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical

**FOR SAFETY REASONS NOT TO BE USED:** Alcohol, Alcohol based solutions, any other media not listed above.

#### 5.2 Special hazards arising from the substance or mixture

No Information

#### 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Water spray Dry powder Alcohol-resistant foam Carbon dioxide (CO<sub>2</sub>). High volume water jet.

### 6. Accidental Release Measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. In the case of dust or aerosol formation use respirator with an approved filter.

**6.2 Environmental precautions**

No Information

**6.3 Methods and material for containment and cleaning up**

No special environmental precautions required. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). After cleaning, flush away traces with water.

**6.4 Reference to other sections**

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 8 and 13 for further information.

**7. Handling and Storage****7.1 Precautions for safe handling**

**INSTRUCTIONS FOR SAFE HANDLING:** Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Avoid prolonged contact with eyes, skin and clothing.

**PROTECTION AND HYGIENE MEASURES:** When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing.

**7.2 Conditions for safe storage, including any incompatibilities**

**CONDITIONS TO AVOID:** Direct sources of heat.

**STORAGE CONDITIONS:** Keep tightly closed in a dry and cool place.

**7.3 Specific end use(s)**

No specific advice for end use available.

**8. Exposure Controls/Personal Protection****8.1 Control parameters****Ingredients with Occupational Exposure Limits (US)**

<u>Name</u>	<u>CAS-No.</u>	<u>ACGIH TWA</u>	<u>ACGIH STEL</u>	<u>ACGIH Ceiling</u>
tris(2-butoxyethyl) phosphate	78-51-3			

<u>Name</u>	<u>CAS-No.</u>	<u>OSHA PEL</u>	<u>OSHA STEL</u>
tris(2-butoxyethyl) phosphate	78-51-3		

**FURTHER INFORMATION:** Refer to the regulatory exposure limits for the workforce enforced in each country.

**8.2 Exposure controls****Personal Protection**

**RESPIRATORY PROTECTION:** Breathing apparatus with filter.

**EYE PROTECTION:** Tightly fitting safety goggles.

**HAND PROTECTION:** Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing.

**OTHER PROTECTIVE EQUIPMENT:** No Information

**ENGINEERING CONTROLS:** Ensure adequate ventilation, especially in confined areas.

**9. Physical and Chemical Properties****9.1 Information on basic physical and chemical properties**

**Appearance:** Not determined

**Physical State** LIQUID

<b>Odor</b>	Slightly musty
<b>Odor threshold</b>	Not determined
<b>pH</b>	Non-aqueous
<b>Melting point / freezing point (°C)</b>	Not determined
<b>Boiling point/range (°C)</b>	N.D. - N.D.
<b>Flash Point, (°F / °C)</b>	428F / 218C
<b>Evaporation rate</b>	Not determined
<b>Flammability (solid, gas)</b>	Not determined
<b>Upper/lower flammability or explosive limits</b>	N/A - N/A
<b>Vapour Pressure</b>	4X10 <sup>-6</sup>
<b>Vapour density</b>	8.5
<b>Relative density</b>	Not determined
<b>Solubility in / Miscibility with water</b>	Reacts with water
<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Auto-ignition temperature (°C)</b>	Not determined
<b>Decomposition temperature (°C)</b>	Not determined
<b>Viscosity</b>	150-260 cps
<b>Explosive properties</b>	Not determined
<b>Oxidising properties</b>	Not determined
<b>9.2 Other information</b>	
<b>VOC Content g/l:</b>	7
<b>Specific Gravity (g/cm<sup>3</sup>)</b>	1.240

## 10. Stability and Reactivity

### 10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

### 10.4 Conditions to avoid

Direct sources of heat.

### 10.5 Incompatible materials

No Information

### 10.6 Hazardous decomposition products

No Information

## 11. Toxicological Information

### 11.1 Information on toxicological effects

**Acute Toxicity:**

**Oral LD50:** >2000 mg/kg oral (rat)

**Inhalation LC50:** 490 mg/m<sup>3</sup>, 4hr (rat)

**Irritation:** No information available.

**Corrosivity:** No information available.

**Sensitization:** No information available.

**Repeated dose toxicity:** No information available.

**Carcinogenicity:** No information available.

**Mutagenicity:** No information available.

**Toxicity for reproduction:** No information available.

**STOT-single exposure:** No information available.

**STOT-repeated exposure:** No information available.

**Aspiration hazard:** No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>	<u>Gas LC50</u>	<u>Dust/Mist LC50</u>
78-51-3	tris(2-butoxyethyl) phosphate	500-5000 mg/kg rat	>10000	6.4 mg/L	0.000	0.000

**Additional Information:**

No Information

## 12. Ecological Information

### 12.1 Toxicity:

**EC50 48hr (Daphnia):** No information

**IC50 72hr (Algae):** 1640 mg/l

**LC50 96hr (fish):** No information

**12.2 Persistence and degradability:** 0% biodegradation, exposure time 28 days

**12.3 Bioaccumulative potential:** No information

**12.4 Mobility in soil:** No information

**12.5 Results of PBT and vPvB assessment:** No information

12.6 Other adverse effects: No information

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
78-51-3	tris(2-butoxyethyl) phosphate	53 mg/L	No information	10.4 - 12.0 mg/L flow-through

### 13. Disposal Considerations

13.1 **WASTE TREATMENT METHODS:** If recycling is not practicable, dispose of in compliance with local regulations. Waste codes should be assigned by the user based on the application for which the product was used. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport Information

14.1 UN number	N/A
14.2 UN proper shipping name	Not regulated for transport
Technical name	N/A
14.3 Transport hazard class(es)	N/A
Subsidiary shipping hazard	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	Not applicable
EmS-No.:	N/A
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

### 15. Regulatory Information

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

#### U.S. Federal Regulations: As follows -

##### CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

None Known

##### Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

No SARA 313 substances exist in this product above de minimis concentrations.

**Toxic Substances Control Act:**

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

**U.S. Clean Air Act:**

EPA Coating Category:	Industrial Maintenance Coating
EPA VOC Content Limit (g/l):	450
Product VOC Content (g/l)	7
Thinning Recommendations:	The coating is to be applied without thinning.
Application Recommendations:	For professional use only.

\* As per the federal EPA definition for coating categories in 40 CFR 59.401.

\*\* Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

**U.S. State Regulations: As follows -****New Jersey Right-to-Know:**

The following materials are non-hazardous, but are among the top five components in this product.

<u>Chemical Name</u>	<u>CAS-No.</u>
No Chemical Name Found	57583-54-7
Phosphonic acid, P-methyl-, (5-ethyl-2-methyl-2-oxido-1,3,2-dioxaphosphorinan-5-yl)methyl methyl ester	041203-81-0
Bis[(5-ethyl-2-methyl-1,3,2-dioxaphosphorinan-5-yl)methyl] methyl phosphonate P,P'-dioxide	042595-45-9

**Pennsylvania Right-To-Know**

The following non-hazardous ingredients are present in the product at greater than 3%.

<u>Chemical Name</u>	<u>CAS-No.</u>
No Chemical Name Found	57583-54-7
Phosphonic acid, P-methyl-, (5-ethyl-2-methyl-2-oxido-1,3,2-dioxaphosphorinan-5-yl)methyl methyl ester	041203-81-0
Bis[(5-ethyl-2-methyl-1,3,2-dioxaphosphorinan-5-yl)methyl] methyl phosphonate P,P'-dioxide	042595-45-9

**California Proposition 65:**

No Proposition 65 Chemicals exist in this product.

**International Regulations: As follows -****\* Canadian DSL:**

All chemical ingredients included on inventory or exempt.

**15.2 Chemical Safety Assessment:**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. Other Information

**Text for GHS Hazard Statements shown in Section 3 describing each ingredient:**

H302	Harmful if swallowed.
H331	Toxic if inhaled.

**Reasons for revision**

Substance and/or Product Properties Changed in Section(s):

- 02 - Hazard Identification
- 03 - Composition/Information On Ingredients
- 09 - Physical and Chemical Properties
- 15 - Regulatory Information

Revision Statement(s) Changed

**List of References:**

This Safety Data Sheet was compiled with data and information from the following sources:

- The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark.
- Joint Research Centre in Ispra, Italy.
- Regulation (EC) 1272/2008 with subsequent amendments.
- Regulation (EC) 1272/2006 with subsequent amendments.
- Commission Regulation (EU) 2020/878
- EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"
- Safety Data Sheet from raw material supplier
- The classification declared in sec. 2.2 is based on the calculation methods set out in Annex I and Annex II of the CLP Reg. 1272/2008 on the composition of the formula.

**Acronym & Abbreviation Key:**

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m3	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%



EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects
IMO	International Maritime Organization
Note P:	The classification as a carcinogen or mutagen need not apply; the substance contains less than 0,1 % w/w benzene
Note 10:	The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter $\leq 10 \mu\text{m}$ .

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.

