



ICL BIOGEMA

## MATERIAL SAFETY DATA SHEET

Updated on:

29/03/2013

Revision n°:

09

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME**

**FIRE-TROL® 931**

**PRODUCT USE**

Fire retardant used in wildfire control.

**SUPPLIER / MANUFACTURER**

**ICL FRANCE – ICL BIOGEMA S.A.S.**

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**EMERGENCY TELEPHONE**

(0033) 442 244 508 /(0033) 670 647 782 or (0033) 689 104 300

### 2. MATERIAL IDENTIFICATION AND INFORMATION

**PREPARATION**

Chemical nature:

Mixture of Ammonium polyphosphate, clay, corrosion inhibitor, and coloring agents

Hazardous components :

None

### 3. HAZARD IDENTIFICATION

**MAIN HAZARDS**

Harmful effects on health:

None

Physical and chemical hazards:

- Unusual Fire or Explosion Hazards

The product is not flammable, have no high or low explosive limit .

- Specific hazards

The product is not considered as a poisonous according to EC regulations.

<p>4. <u>EMERGENCY AND FIRST AID PROCEDURES</u></p> <p>Skin contact:</p> <p>Eye contact:</p> <p>Inhalation:</p> <p>Ingestion:</p>	<p>Wash off with water. Remove contaminated clothing.</p> <p>Flush eyes immediately with plenty of water for at least fifteen minutes. Get medical attention.</p> <p>Move person to fresh air and provide oxygen if breathing is difficult. Get medical attention.</p> <p>Call a doctor immediately.</p>
<p>5. <u>FIRE FIGHTING PROCEDURES</u></p> <p>Extinguishing Media:</p> <p>Specific hazards:</p>	<p>Non flammable extinguishing product. Use water to cool containers exposed to fire.</p> <p>When the concentrate is heated to 435°C, hydrogen cyanide may form.</p>
<p>6. <u>PROCEDURES IN CASE OF ACCIDENTAL DISPERSION</u></p> <p>Individual precautions :</p> <p>Environmental precaution:</p> <p>Methods for cleaning up:</p> <ul style="list-style-type: none"> <li>- Recovery</li> <li>- Cleaning / decontamination</li> <li>- Elimination</li> </ul>	<p>Wear boots and exercise caution to prevent slip falls.</p> <p>Contain the spread.</p> <p>Retrieve the product with shovels and brushes. Wash off with plenty of water. Incinerate in approved installation.</p>
<p>7. <u>HANDLING AND STORAGE</u></p> <p><b>HANDLING</b></p> <p>Technical measurements:</p> <p><b>STORAGE</b></p> <p>Technical measurements:</p> <p>Recommended storage conditions:</p> <p>Packing conditions:</p> <p>Packing materials:</p> <ul style="list-style-type: none"> <li>- Recommended</li> <li>- Not recommended</li> </ul>	<p>Follow good industrial practices.</p> <p>Bulk storage, steel tank. NA. Drums and containers.</p> <p>Plastic, steel, aluminum. Avoid contact with zinc and magnesium.</p>
<p>8. <u>EXPOSURE CONTROL / INDIVIDUAL PROTECTION</u></p> <p><b>INDIVIDUAL PROTECTION</b></p> <p>Hand protection:</p> <p>Eyes protection:</p> <p>Skin protection:</p> <p>Ventilation:</p> <p><b>COLLECTIVE EMERGENCY MEANS</b></p> <p><b>Hygiene measures</b></p>	<p>Rubber gloves are recommended. Wear safety glasses. Wear appropriate work clothes. Work in a well aerated area.</p> <p>Water supply.</p> <p>Do not eat, drink, and smoke during handling. Wash hands after work.</p>

<p>9. <u>PHYSICAL AND CHEMICAL PROPERTIES</u></p> <p><b>GENERAL INFORMATION</b> Appearance: Solubility:</p> <p><b>IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION</b> Specific Gravity (Concentrate): Specific Gravity (Solution 20%): pH (Concentrate) at 20°C: pH (Solution 20%) at 20°C: Freezing point: Boiling point: Viscosity (concentrate):</p>	<p>Dark red, high viscosity liquid. Soluble in water. Contains some insoluble substances (clay, colored pigments).</p> <p>1.38 to 1.43 kg/dm<sup>3</sup> 1.08 to 1.10 kg/dm<sup>3</sup> 6.0 - 6.5 6.4 - 6.6 NA 106°C. &gt; 1000 cP</p>
<p>10. <u>STABILITY AND REACTIVITY</u></p> <p>Stability :</p> <p>Incompatibility:</p> <p>Hazardous decomposition :</p>	<p>The concentrate has excellent long-term stability. No risk of polymerization.</p> <p>Avoid contact with strong acids to prevent formation of Hydrogen cyanide.</p> <p>Hazardous decomposition products are ammonia and hydrogen cyanide. The latter forms when temperature exceeds 435°C.</p>
<p>11. <u>TOXICOLOGICAL DATA</u></p> <p><u>Before concentrate is diluted with water:</u></p> <ul style="list-style-type: none"> <li>- Eye irritation</li> <li>- Eye irritation</li> <li>- Skin irritation</li> <li>- Ingestion</li> </ul> <p><i>Tests results on animals *</i></p> <ul style="list-style-type: none"> <li>• Eye irritation (rabbit)</li> <li>• Skin irritation (rabbit)</li> <li>• Acute Oral Toxicity (rat)</li> <li>• Acute Dermal Toxicity (rabbit)</li> </ul> <p><u>Diluted product (20% by volume):</u></p> <ul style="list-style-type: none"> <li>- Eye irritation :</li> <li>- Skin irritation :</li> <li>- Ingestion :</li> </ul> <p><i>Tests results on animals</i></p> <ul style="list-style-type: none"> <li>• Eye irritation (rabbit)</li> <li>• Skin irritation (rabbit)</li> <li>• Acute Oral Toxicity (rat)</li> <li>• Acute Dermal Toxicity (rabbit)</li> </ul>	<p>Mild to Moderate irritation. Mild irritation. May cause throat irritation</p> <p>Slight irritation. Cat.3 toxicity<sup>U</sup> Practically no irritation Cat.3 toxicity LD<sub>50</sub> &gt; 5010 mg/kg. Cat.3 toxicity LD<sub>50</sub> &gt; 2040 mg/kg Cat.2 toxicity</p> <p>Mild to Moderate irritation. Mild irritation. May cause throat irritation</p> <p>Slight irritation. Cat.3 toxicity Practically no irritation Cat.3 toxicity LD<sub>50</sub> &gt; 5020 mg/kg. Cat.3 toxicity LD<sub>50</sub> &gt; 2010 mg/kg Cat.2 toxicity</p>

\* according to *US Forest Service Specifications* for long term retardants ( 5100-304a, February 1986 )

<sup>U</sup> Toxicity categories : I – corrosive, irritations persisting through 21 days. II – irritations clearing 8-21 days. III – clearing in 7 days or less. IV – minimal effects, clearing in less than 24 hours.

<p>12. <u>ECOLOGICAL DATA</u></p> <p><b>ECOTOXICITY</b> Effects on the aquatic environment:</p> <p><b>PERSISTENCE AND DEGRADABILITY</b></p> <p><b>BIO ACCUMULATION</b></p>	<p>None (Ecotoxicity Tests run in 2005 with <i>Daphnia magna</i> STRAUS and <i>Danio rerio</i> HAMILTON BUCHANAN )</p> <p>The chemical base is a fertilizer. All components are entirely biodegradable.</p> <p>None</p>						
<p>13. <u>DISPOSAL INFORMATION</u></p> <p><b>PRODUCT WASTES</b></p> <p>- Prohibited:</p> <p>- Destruction / elimination:</p>	<p>Do not dispose of large quantities in sewerage system</p> <p>For elimination, comply with applicable local regulations.</p>						
<p>14. <u>TRANSPORTATION DATA</u></p> <p><b>INTERNATIONAL REGULATIONS</b></p> <p>- Road / Rail - Sea - Air</p>	<table border="0"> <tr> <td>RID/ADR/RTMD</td> <td>Not regulated for transportation</td> </tr> <tr> <td>OMI/IMDG</td> <td>Not regulated for transportation</td> </tr> <tr> <td>OACI/IATA</td> <td>Not regulated for transportation</td> </tr> </table>	RID/ADR/RTMD	Not regulated for transportation	OMI/IMDG	Not regulated for transportation	OACI/IATA	Not regulated for transportation
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<p>15. <u>STATUTORY DATA</u></p> <p><b>LABELING</b> EEC regulation:</p>	<p>None</p>						
<p>16. <u>OTHER DATA</u></p> <p><b>Classifications / Symbols</b></p> <p><b>Recommended use</b></p>	<p>Liquid concentrate fire retardant designed to be diluted with water and used for aerial applications.</p> <p>Forest Fire Fighting</p>						

This safety data sheet was drafted in compliance with EEC Directive 91/155 of March 5, 1991 as amended by Directive 93/112/CE of December 10, 1993 and Directive 2001/58/CE of July 27, 2001.

Cause for revision: Translation updates

Replaces MSDS dated: 22/02/2013

FIRE-TROL® is a registered trademark of ICL Performance Products LP

**Notice of warranty:**

This data sheet supplements the technical notes of use but does not replace them. The information contained herein is based on our knowledge of the product concerned at the date indicated. It is given in good faith. Users are hereby warned of the possible risks of use of the product for purposes other than intended. Users are expected to know and comply with all statutory obligations relating to their activity. Users are solely responsible for the caution they exercise in using the product.

