MATERIAL SAFETY DATA SHEET

Product Name: SaFRon 6605
Product id: 7121
Revision date: 21/04/2010

1. Identification of the substance & the company

Chemical name: A mixture
Type of product and use: Flame retardant
Supplier: ICL-IP America Inc.
622 Emerson Road - Suite 500
St Louis, Missouri 63141, USA
Tel:(314)983-7884  Fax:(314)983-7607
Emergency Telephone: Chemtrec (800)424-9300
Medical: PROSAR 1-888-875-1685 (24HRS)

2. Hazards identification

Emergency overview:
Causes eye irritation
May be harmful if swallowed
May cause skin and respiratory tract irritation.

NFPA Ratings (Scale 0-4):
Health = 2, Fire = 1, Reactivity = 0.
HMIS Ratings (Scale 0-4):
Health = 2, Fire = 1, Reactivity = 0.

3. Composition / information on ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribromoneopentyl alcohol</td>
<td>36483-57-5</td>
<td>40-80</td>
</tr>
<tr>
<td>Tris(2-chloro-1-methylethyl) phosphate</td>
<td>13674-84-5</td>
<td>25 - 50</td>
</tr>
</tbody>
</table>

4. First-aid measures

Eye contact: Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.
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Skin contact
Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before re-use. Get medical attention if irritation occurs.

Inhalation
In case of inhalation, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

Ingestion
If swallowed, wash mouth thoroughly with plenty of water. Get medical attention immediately.

********************************************************************************
NOTE: Never give an unconscious person anything to drink.
********************************************************************************

Notes to the physician
Treat symptomatically and supportively. No specific antidote.

5. Fire - fighting measures

Suitable extinguishing media
Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions.

Fire fighting procedure
Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Contain fire fighting water to prevent entry into water or drainage systems.

Unusual fire and explosion hazards
When heated to decomposition, may release poisonous and corrosive fumes of Carbon Dioxide, Carbon Monoxide, Hydrogen Bromide, Hydrogen Chloride, Phosphorus Oxides and organic decomposition products.

6. Accidental release measures

Personal precautions
Wear appropriate safety clothing and eye/face protection (see Section 8)

Methods for cleaning up
Soak up with sand or other suitable absorbant and dispose of as solid waste. Collect in suitable and properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

Environmental precautions
Prevent product from entering drains, ditches and rivers.
7. Handling and storage

Handling
Avoid bodily contact.
Keep containers tightly closed.

Storage
Store in a dry, cool, well-ventilated area away from flammable or oxidizing materials and sources of heat or flame.

8. Exposure controls / personal protection

Exposure Limits:

<table>
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<tr>
<th>Components</th>
<th>ACGIH-TLV Data</th>
<th>OSHA (PEL) Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribromoneopentyl alcohol 36483-57-5</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
<tr>
<td>Tris(2-chloro-1-methylethyl) phosphate 13674-84-5</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Ventilation requirements
Adequate ventilation is recommended to control potential employee exposure.

Personal protective equipment:
- Respiratory protection
  In case of insufficient ventilation wear suitable respiratory equipment.
- Hand protection
  Neoprene gloves
- Eye protection
  Chemical safety goggles
- Skin and body protection
  Body covering clothes and boots

Hygiene measures
Safety shower and eye bath should be provided. Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

9. Physical and chemical properties

Appearance
Clear liquid

Color
Amber

Odour
Slight

Boiling point/range
Not determined

Melting point/range
Not determined
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Flash point: >225°C (>437°F) (closed cup)
Flammable/Explosion limits: Not explosive/Not flammable
Auto-ignition temperature: Not self-ignitable
Vapour pressure: Not determined
Viscosity: 2480 mPas (25°C)
Solubility:
- Solubility in water: Not available
Density: 1510 kg/m³
pH: 0.042 mgKOH/g (Acid Number)

10. Stability and reactivity

Stability: Stable under normal conditions.
Materials to avoid: Strong oxidizers, strong acids and strong alkalis.
Conditions to avoid: It hydrolyzes slowly at normal temperatures in acidic or alkaline aqueous solutions.
Hazardous decomposition products: Phosphorus oxides, carbon monoxide, carbon dioxide, hydrogen bromide and hydrogen chloride.
Hazardous polymerization: Not expected to occur

11. Toxicological information

Note: Toxicological data have not been determined specifically for this product. Toxicity data for the most potent material in the mixture for each category are listed below:

Acute toxicity:
- Rat oral LD50: < 2000 mg/kg
- Rabbit dermal LD50: > 2000 mg/kg
- Rat dermal LD50: > 2000 ml/kg
- Rat inhalation LC50: > 4.6 mg/l (4-hr)
- Eye irritation (rabbit): Severe irritant

- Dermal irritation (rabbit): Mild irritant
Dermal sensitization: Not a sensitizer

Sub-chronic toxicity: In a 90-day subchronic oral toxicity study, rats were fed 800, 2500, 7500 or 20,000 ppm of product in the diet. Effects on liver weights were seen at all dose levels and on kidney weights at 7500 ppm and above. Histopathological changes were seen at 7500 ppm (kidneys) and 20,000 ppm (kidneys, liver and bone marrow).
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### Chronic toxicity
No data available

### Mutagenicity
Non genotoxic in various in-vivo tests

### Carcinogenicity
Not classified by IARC  
Not included in NTP 11th Report on Carcinogens  
Not classified as a carcinogen by USA OSHA

### Neurotoxicity
Not neurotoxic

## 12. Ecological information

**Note**: Ecological data have not been determined specifically for this product.

## 13. Disposal considerations

**Waste disposal**: Observe all federal, state and local environmental regulations when disposing of this material

## 14. Transportation information

**DOT**: Not regulated

**IMO**: Not regulated

**ICAO/IATA**: Not regulated

## 15. Regulatory information

**USA**
Reported in the EPA TSCA Inventory

- **SARA 313**
This product does not contain a chemical listed at or above de minimis concentrations.

- **Waste Classifications**
This material does not meet RCRA’s characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40CFR 261.33.
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- **Workplace Classification**  
  This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

  - **Canada** | Listed in DSL  
  - **WHMIS hazard class** | D2B toxic materials  
  - **EU** | Reported in EINECS  
  - **Japan** | Listed in ENCS  
  - **Australia** | Listed in AICS  
  - **New Zealand Inventory** | Not all the ingredients are listed in NZIoC  
  - **China inventory** | Listed  
  - **Korea** | Listed in the Korea Existing Chemicals Inventory (KECI)  
  - **Philippines** | Not all the ingredients in this preparation are listed in PICCS

## 16. Other information

**Health, Safety & Environment Policy**

We will strive to ensure that our operations and products meet the needs of the present global community without compromising the ability of future generations to meet their needs.

We accept that the success of our business is dependent on the supply of products and services that will benefit society whilst ensuring human safety and protection of the environment and natural resources.

Within the framework of our commitment to the Responsible Care program, we will provide a healthy and safe work environment for employees and will responsibly manage our products at all stages of their life cycle in order to protect human health and the environment whilst maintaining high production standards of operation.

TO MEET THIS COMMITMENT WE WILL:

- Comply with or exceed applicable national and international regulatory requirements and other requirements to which we subscribe.
- Communicate openly and actively encourage dialogue with employees, customers and community concerning our products and operations.
- Implement documented management systems consistent with and for promotion of the Responsible Care ethics.
- Develop and supply products that can be manufactured, transported, used and disposed of safely whilst best meeting the needs of our customers.
- Regularly assess, continually improve and responsibly manage health, safety and environmental risks associated with products and processes throughout their life-cycles.
- Share knowledge and expertise with others and seek to learn from and incorporate improved practices into our own operations.
Educate and train employees, contractors and customers to improve their HSE performance
Communicate up-to-date information to enable our workers, customers and other interested parties to handle our
products in a safe and environmentally responsible manner
Endeavor to work with customers, suppliers, distributors and contractors to foster the safe use, transport and disposal of
our chemicals
Support Product Stewardship programs in cooperation with customers, distributors and transporters

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