1. Identification of the substance & the company

Chemical name: Decabromodiphenyl ethane
Chemical formula: C14H4Br10
Chemical family: Brominated aromatic hydrocarbon
Molecular weight: 972
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 1-800-420-9236

2. Hazards identification

Emergency overview: From data comparisons to similar compounds, the Environmental Protection Agency has concluded that this substance may cause cancer as a result of significant chronic dermal and inhalation exposures to workers. Based on comparison to similar compounds, the Environmental Protection Agency has concluded that this compound may be toxic to aquatic organisms.

3. Composition / information on ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decabromodiphenyl ethane</td>
<td>84852-53-9</td>
<td>100</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.

Skin contact
Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Inhalation
In case of dust inhalation or breathing fumes released from heated material, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately. 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.

5. Fire-fighting measures

Suitable extinguishing media
Water spray, carbon dioxide (CO₂), dry chemical powder or appropriate foam.

Fire fighting procedure
In closed areas, provide fire-fighters with self-contained breathing apparatus in positive pressure mode.

Unusual fire and explosion hazards
When heated to decomposition, may release poisonous and corrosive fumes of Carbon Dioxide, Carbon Monoxide, Bromine and Hydrogen Bromide.

6. Accidental release measures

Personal precautions
Avoid dust formation.
Wear protective clothing specified for normal operations (see section 8).

Methods for cleaning up
Sweep up, place in a bag and hold for waste disposal or possible re-use. Ventilate area.

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

Handling
Keep containers tightly closed. Avoid bodily contact.

Storage
No special storage required.

8. Exposure controls / personal protection

Exposure Limits :

<table>
<thead>
<tr>
<th>Components</th>
<th>ACGIH-TLV Data</th>
<th>OSHA (PEL) Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decabromodiphenyl ethane</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
<tr>
<td>84852-53-9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ventilation requirements
Mechanical exhaust required.

Personal protective equipment:
- Respiratory protection
  When using this compound and exposure through inhalation is likely, wear an OSHA approved Category 21C air-purifying respirator equipped with a full facepiece and high efficiency particulate filters or a Category 21C powered air purifying respirator.

- Hand protection
  Rubber 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Off-white powder</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>345°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammable/Explosion limits</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt;0.0001Pa (20°C)</td>
</tr>
<tr>
<td>Solubility:</td>
<td></td>
</tr>
</tbody>
</table>
9. Physical and chemical properties

- Solubility in water: 0.72µg/l at 25°C
- Specific gravity: 3.25
- Partition coefficient (n-octanol/water): Log Kow - 3.55
- Particle size: Mass Median Aerodynamic Diameter (MMAD) of 5 µm

10. Stability and reactivity

- Stability: Stable under normal conditions
- Materials to avoid: Strong oxidizing agents. Strong acids. strong bases
- Conditions to avoid: Heating above 320 °C
- Hazardous decomposition products: CO, CO2, HBr & Br2
- Hazardous polymerization: Will not occur

11. Toxicological information

Acute toxicity:
- Rat oral LD50: > 5000 mg/kg
- Rabbit dermal LD50: > 2000 mg/kg
- Eye irritation (rabbit): Not irritant
- Dermal irritation (rabbit): Not irritant

Dermal sensitization: Not a sensitizer

Sub-chronic toxicity:
- NOAEL: 1000 mg/kg/day (13 weeks oral, rat)

Mutagenicity:
- Not mutagenic by the Ames Test
- Did not induce chromosome aberrations in CHL cells when tested up to 5000 µg/mL in the presence or absence of S9 activation.

Carcinogenicity:
- Not included in NTP 12th Report on Carcinogens
- Not classified by IARC

Developmental toxicity:
- Decabromodiphenyl ethane did not induce developmental effects in rats at doses up to 1250 mg/kg/d administered prenatally.
12. Ecological information

Aquatic toxicity:
- 96 Hour-LC50, Fish >110 mg/L
- 96 Hour- IC50, Algae >110 mg/L

Biodegradation
Not readily biodegradable

Bioaccumulative potential
Not bioaccumulative

13. Disposal considerations

Waste disposal
Do not release this compound into U.S. waters. Observe all federal, state and local environmental regulations when disposing of this material.

14. Transportation information

DOT
Not regulated

IMDG
Not regulated

ICAO/IATA
Not regulated

15. Regulatory information

USA
Reported in the EPA TSCA Inventory. Subject to reporting under SNUR (Significant New Use Rule), section 40 CFR 721.536

EU
Reported in EINECS

Japan (CSCL regulation)
ENCS no. (4)-1735
ISHL no. 7-(4)-841

New Zealand Inventory
Listed in NZIoC
PRODUCT NAME: FR-1410

PRODUCT ID: 9311

Revision date: 02/11/2011

China inventory: Listed in IECSC

Korea: Listed in the Korea Existing Chemicals Inventory (KECI) 97-3-898

16. Other information

Product is not subject to classification according to GHS. No label elements required.

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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End of safety data sheet