## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** DURAD® 125  
**Product Use Description:** Fire retardant  

**Company:** Chemtura Corporation  
199 Benson Road  
Middlebury, CT  
06749  
United States of America  
Telephone: (US) +1 866-430-2775  

**Emergency telephone number:** CHEMTREC: (24 hours) 800-424-9300  
Chemtura Corporation Emergency Response: CHEMTURA: 800-292-5898  
For additional emergency telephone numbers see section 16 of the Safety Data Sheet.  

**Prepared by:** Product Safety Department  
(US) +1 866-430-2775  
MSDSRequest@chemtura.com

## SECTION 2. HAZARDS IDENTIFICATION

**Emergency Overview**

**Caution**

<table>
<thead>
<tr>
<th>Form: liquid</th>
<th>Colour: colourless</th>
<th>Odour: odourless</th>
</tr>
</thead>
</table>

**Hazard Summary**

- May cause irritation of respiratory tract.
- May cause irritation of the mucous membranes.
- May cause harm to the unborn child.

Do not handle until all safety precautions have been read and understood.

**OSHA Hazards**


**Potential Health Effects**

**Primary Routes of Entry**

- Inhalation
- Ingestion
Skin contact

Aggravated Medical Condition

Inhalation: None reported.

Eyes: May irritate eyes.

Ingestion: May be harmful if swallowed.

Chronic Exposure: Reproductive effects largely based on animal evidence

Symptoms of Overexposure: Symptoms may be delayed, toxic effects for reproduction

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

<table>
<thead>
<tr>
<th>Component / CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>tris(methylphenyl) phosphate 1330-78-5</td>
<td>100 &lt;= 100 %</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

First aid procedures

Inhalation: Remove to fresh air. Obtain medical attention.
### Skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and water. Call a physician if irritation develops or persists.

### Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

### Ingestion
If conscious, make the victim drink the following: Drink 1 or 2 glasses of water. Obtain medical attention.

### Notes to physician
- **Symptoms:** Symptoms may be delayed. toxic effects for reproduction
- **Treatment:** The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

### SECTION 5. FIREFIGHTING MEASURES

#### Flammable properties
- **Flash point:** 437 °F (225 °C)
  Method: ASTM D 93
- **Ignition temperature:** 1,125 °F (607 °C)
  Remarks: Auto-flammability
- **Lower explosion limit:** Remarks: no data available
- **Upper explosion limit:** Remarks: no data available

#### Fire fighting
- **Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- **Further information:** Use water spray to cool unopened containers.

#### Protective equipment and precautions for firefighters
- **Specific hazards during firefighting:** Burning produces irritant fumes. Exposure to decomposition products may be a hazard to health.
- **Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Use personal protective equipment.
Environmental precautions: Should not be released into the environment.

Methods for containment / Methods for cleaning up: Remove all sources of ignition.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Shovel into suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Handling
Handling procedures: Handle in accordance with good industrial hygiene and safety practice.
Use only with adequate ventilation.
Keep away from heat and sources of ignition.
Avoid contact with skin, eyes and clothing.
Wear personal protective equipment.
Avoid formation of aerosol.
Do not breathe vapours or spray mist.

Storage
Requirements for storage areas and containers: Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep away from flames and sparks.

Other data: Stable under recommended storage conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Contains no substances with occupational exposure limit values.

Engineering measures
Engineering measures: Use local ventilation to keep levels below established threshold values.
Avoid formation of dust and aerosols.
Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapors.
In case of inadequate ventilation wear respiratory protection.
Adequate general ventilation is recommended when handling to control airborne levels.
Use mechanical ventilation for general area control.

Personal protective equipment
Eye protection: Tightly fitting safety goggles
Hand protection: butyl-rubber
Nitrile rubber
Skin and body protection: impervious clothing
Respiratory protection: Wear a NIOSH/MSHA approved organic cartridge respirator if misting or vapor occurs, or there is potential for airborne exposures to exceed established threshold values. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Wear a NIOSH/MSHA approved self-contained breathing apparatus in emergency situations.

Hygiene measures: Wash thoroughly after handling. Wash contaminated clothing before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: liquid
Colour: colourless
Odour: odourless

Safety data
Flash point: 437 °F (225 °C)  
Method: ASTM D 93

Ignition temperature: 1,125 °F (607 °C)  
Remarks: Auto-flammability

Lower explosion limit: Note: no data available
Upper explosion limit: Note: no data available

Freezing point: < -40 °F (-40 °C)

Boiling point/boiling range: 466 - 491 °F (241 - 255 °C)

Vapour pressure: 0.044 hPa (4.400 mmHg)  
at 302 °F (150 °C)

Specific Gravity: 1.16 - 1.18 at 20 °C  
1.16 - 1.18 at 20 °C

Water solubility: Note: insoluble

Partition coefficient: n-octanol/water: POW: 5.93

Viscosity, dynamic: 70 mPa.s  
at 77 °F (25 °C)
SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Remarks: Heat, flames and sparks.
Materials to avoid : Remarks: None known.

Hazardous decomposition products

<table>
<thead>
<tr>
<th>Note</th>
<th>Oxides of phosphorus</th>
</tr>
</thead>
</table>

Thermal decomposition : \( >300 \, ^\circ \text{C} \)

Hazardous reactions : Hazardous polymerisation does not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: \( > 5,000 \, \text{mg/kg} \)
Species: rat

Acute inhalation toxicity : LC50: \( > 5.2 \, \text{mg/l} \)
Exposure time: 4 h
Species: rat

Acute dermal toxicity : LD50: \( > 10,000 \, \text{mg/kg} \)
Species: rabbit

Skin irritation : Species: rabbit
Result: No skin irritation
Method: Draize Test
Exposure time: 24 h

Eye irritation : Species: rabbit
Result: No eye irritation

Sensitisation : Result: Does not cause skin sensitization.

Aspiration toxicity : No aspiration toxicity classification

Toxicology Assessment

CMR effects : Carcinogenicity:
Not classified due to lack of data.
Mutagenicity:
Not classified due to data which are conclusive although insufficient for classification.
Reproductive toxicity:
May damage the unborn child. Suspected of damaging fertility.
Further information  : Acute Health Hazard
                   :    Chronic Health Hazard

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish

: LC50: 0.75 mg/l
  Exposure time: 96 h
  Species: Oncorhynchus mykiss (rainbow trout)

: LC50: > 100 mg/l
  Exposure time: 96 h
  Species: Pimephales promelas (fathead minnow)

: LC50: 0.6 mg/l
  Exposure time: 96 h
  Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates

: EC50: 0.146 mg/l
  Exposure time: 48 h
  Species: Daphnia magna (Water flea)
  Method: OECD Test Guideline 202

: EC50: 0.27 mg/l
  Exposure time: 48 h
  Species: Daphnia magna (Water flea)

Elimination information (persistence and degradability)

Bioaccumulation

: Remarks:
  no data available

Mobility

: Remarks:
  no data available

Biodegradability

: Result: According to the results of tests of biodegradability this product is not readily biodegradable. 24 %

Further information on ecology

Ecotoxicology Assessment

Results of PBT assessment
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

Additional ecological  : Very toxic to aquatic organisms, may cause long-term adverse effects.
SECTION 13. DISPOSAL CONSIDERATIONS

Further information: Dispose of as hazardous waste in compliance with local and national regulations. Dispose of wastes in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

DOT
UN number: 3082
Description of the goods: Environmentally hazardous substances, liquid, n.o.s.
Class: 9
Packing group: III
ERG Code: 171

IATA
UN number: 3082
Description of the goods: Environmentally hazardous substance, liquid, n.o.s. (tris(methylphenyl) phosphate)
Class: 9
Packing group: III
Labels: 9
Environmentally hazardous: yes

IMDG
UN number: 3082
Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (tris(methylphenyl) phosphate)
Class: 9
Packing group: III
EmS Number 1: F-A
EmS Number 2: S-F
Marine pollutant: yes
Environmentally hazardous: yes

SECTION 15. REGULATORY INFORMATION

OSHA Hazards: This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.
CERCLA Reportable : 
SARA 302 Reportable Quantity : 
SARA 311/312 Hazards : Chronic Health Hazard 
Acute Health Hazard 

EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO - KNOW 
SARA 302 Reportable Quantity : 
SARA 304 Components : This material does not contain any components with a section 304 EHS RQ. 

The components of this product are reported in the following inventories: 
US.TSCA On TSCA Inventory 
DSL All components of this product are on the Canadian DSL list. 
AICS On the inventory, or in compliance with the inventory 
NZIoC On the inventory, or in compliance with the inventory 
ENCS On the inventory, or in compliance with the inventory 
KECI On the inventory, or in compliance with the inventory 
PICCS On the inventory, or in compliance with the inventory 
IECSC On the inventory, or in compliance with the inventory 
CH INV On the inventory, or in compliance with the inventory 

SECTION 16. OTHER INFORMATION 

Further information 
HMIS Classification : Health hazard: 1 
Chronic Health Hazard: *
Flammability: 1
Reactivity: 0
PPI: Ask supervisor or safety specialist for handling instructions

NFPA Classification:
- Health hazard: 1
- Fire Hazard: 1
- Reactivity Hazard: 0

Other Emergency Phone Number

<table>
<thead>
<tr>
<th>Latin America:</th>
<th>Brazil</th>
<th>+55 113 711 9144</th>
</tr>
</thead>
<tbody>
<tr>
<td>All other countries</td>
<td>+44 (0) 1235 239 670</td>
<td></td>
</tr>
<tr>
<td>Mexico:</td>
<td>+52 555 004 8763</td>
<td></td>
</tr>
</tbody>
</table>

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.