



SAFETY DATA SHEET

DURAD® 60

Version: 1.1

Revision Date: 03/31/2015

Print Date: 04/22/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: DURAD® 60

Product Use Description: Flame retardants

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

Recommended use of the chemical and restrictions on use

Recommended use : Flame retardants

Restrictions on use : Restricted to professional users.

SECTION 2. HAZARDS IDENTIFICATION

Form	liquid
Colour	colourless to light yellow
Odour	slight stinging

GHS Classification

Skin irritation : Category 2

GHS Label element

Signal word : **Warning**



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Hazard pictograms

:



Hazard statements

: H315 Causes skin irritation.

Other hazards

: None

Precautionary statements

: **Prevention:**

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

Self-ignitable

: No data available

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
tris(2-ethylhexyl) phosphate	78-42-2	>= 90 - <= 100 %

SECTION 4. FIRST AID MEASURES

If inhaled

: Remove to fresh air.
Obtain medical attention.

In case of skin contact

: Remove contaminated clothing and shoes.
Wash off with warm water and soap.
If symptoms persist, call a physician.

In case of eye contact

: Rinse immediately with plenty of water, also under the eyelids,



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- for at least 15 minutes.
If symptoms persist, call a physician.
- If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : irritant effects
- Notes to physician : For specialist advice physicians should contact the Poisons Information Service.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Extinguishing media - large fires
Alcohol-resistant foam
(on small fires)
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : Water spray jet
- Specific hazards during firefighting : Burning produces irritant fumes.
Exposure to decomposition products may be a hazard to health.
- Specific extinguishing methods : Prevent fire extinguishing water from contaminating surface water or the ground water system.
- Special protective equipment for firefighters : Full protective flameproof clothing
Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear suitable protective equipment.
Avoid contact with skin and eyes.
- Environmental precautions : Discharge into the environment must be avoided.
- Methods and materials for containment and cleaning up : 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). Large spills should be



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collected mechanically (remove by pumping) for disposal.
In accordance with local and national regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not get in eyes.
Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with skin, eyes and clothing.
Avoid inhalation of vapour or mist.
Use with adequate ventilation.
- Conditions for safe storage : Keep in a dry, cool place.
- Materials to avoid : Acids, Bases, Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

- Engineering measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Effective exhaust ventilation system

Personal protective equipment

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
- Hand protection
Remarks : Solvent-resistant gloves (butyl-rubber) Nitrile rubber
- Eye protection : Safety goggles
- Skin and body protection : impervious clothing

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Color : colourless to light yellow
- Odor : slight stinging
- Odour Threshold : No data available
- pH : No data available
- Melting point/range : < -70 °C



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Boiling point/boiling range	: No data available
Evaporation rate	: No data available
Flash point	: 195 °C Method: ASTM D 93
Auto-flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: < 0.133 hPa (20 °C)
Relative vapour density	: 14.95
Relative density	: 0.92 (20 °C)
Density	: No data available
<u>Solubility(ies)</u>	
Water solubility	: 1 g/l (20 °C)
	No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: 4.2
	No data available
Auto-ignition temperature	: 370 °CAuto-flammability
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: 8 mPa.s (38 °C)
Viscosity, kinematic	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: No decomposition if stored normally.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Heat, flames and sparks. Exposure to moisture. Contamination



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Incompatible materials : Acids
Bases
Oxidizing agents

Hazardous decomposition products : Oxides of phosphorus
Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity (Product) : LD50: 37,000 mg/kg
Species: Rat

Acute inhalation toxicity (Product) : LC50: 475 mg/l
Exposure time: 3 h
Species: Rat

Acute dermal toxicity (Product) : LD50: 20,000 mg/kg
Species: Rabbit

Skin irritation (Product) : Result: Irritating to skin.

Eye irritation (Product) : Remarks: Not classified due to data which are conclusive although insufficient for classification.

Aspiration toxicity (Product) : No aspiration toxicity classification

Genotoxicity in vitro (Product) : Ames test
negative

CMR effects
tris(2-ethylhexyl) phosphate (Component) : Mutagenicity: In vitro tests did not show mutagenic effects

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish (Product) : LC50: > 500 mg/l
Exposure time: 96 h



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Toxicity to daphnia and other aquatic invertebrates (Product) : EC50: > 42 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Toxicity to algae (Product) : IC50: 161 mg/l
Exposure time: 72 h
Species: Algae

Elimination information (persistence and degradability)

Bioaccumulation (Product) : Remarks:
No data available

Mobility (Product) : Remarks:
No data available

Biodegradability (Product) : Result: No data available

Further information on ecology

Ecotoxicology Assessment

Results of PBT assessment (Product)

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of wastes in an approved waste disposal facility.
The product should not be allowed to enter drains, water courses or the soil.
In accordance with local and national regulations.
Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

ADR



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Not dangerous goods

RID

Not dangerous goods

MERCOSUR

Not dangerous goods

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA304 Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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.

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



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IECSC

On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Further information

Other Emergency Phone Number

<u>Latin America:</u>	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
<u>Mexico:</u>		+52 555 004 8763

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.