

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: DURAD® 40

Product Use Description: Additive

Synonyms: triisobutyl phosphate

Company: LANXESS Solutions US Inc.  
2 Armstrong Road  
Shelton, Ct  
06484  
United States of America (USA)  
  
Telephone: (US) +1 866-430-2775

Emergency telephone number: CHEMTREC: (24 hours) 800-424-9300  
:  
: US : 800-292-5898 (Technical inquiries)

For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

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

Recommended use of the chemical and restrictions on use

Recommended use : Additive

Restrictions on use : Restricted to professional users.

### SECTION 2. HAZARDS IDENTIFICATION

Form	liquid
Colour	clear
Odour	pungent musty

#### GHS Classification

Skin sensitisation : Category 1

#### GHS label elements

# SAFETY DATA SHEET




## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

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Signal word : **Warning**

Hazard pictograms : 

Hazard statements : H317 May cause an allergic skin reaction.

Other hazards : None

Precautionary statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P363 Wash contaminated clothing before reuse.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

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 on OSHA's list of regulated carcinogens.

**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 (%)
triisobutyl phosphate	126-71-6	>= 90 - <= 100 %

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

### SECTION 4. FIRST AID MEASURES

- If inhaled : Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.  
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
If symptoms persist, call a physician.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : sensitising effects
- Protection of first-aiders : No hazards which require special first aid measures.
- Notes to physician : For specialist advice physicians should contact the Poisons Information Service.

### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.  
Use personal protective equipment.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
- Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.  
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
- Materials to avoid : Strong oxidizing agents

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

#### Personal protective equipment

- Hand protection  
Remarks : Polyvinyl alcohol or nitrile- butyl-rubber gloves The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves clean them with soap and water.
- Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles
- Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

practice.  
Wash hands before breaks and at the end of workday.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Color	: clear
Odor	: pungent musty
Odour Threshold	: No data available
pH	: 8.5
Melting point/range	: < -80 °C
Boiling point/boiling range	: > 115 °C
Evaporation rate	: No data available
Flash point	: 156 °C Method: open cup
Auto-flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: 9.7 hPa (150 °C)
Relative vapour density	: No data available
Relative density	: 0.95 - 0.97 (20 °C)
Density	: No data available
<u>Solubility(ies)</u>	
Water solubility	: 1 g/l (25 °C)
	No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: 410 °CAuto-flammability
Thermal decomposition	: 270 °C

Viscosity

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

Viscosity, dynamic : 3.1 mPa.s (20 °C)

Viscosity, kinematic : No data available

Molecular weight : No data available

### SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Hazardous polymerisation does not occur.

Conditions to avoid : Exposure to moisture  
Contamination

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products :  
Carbon oxides  
Oxides of phosphorus

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

##### Components:

##### **triisobutyl phosphate:**

Acute oral toxicity : LD50 (Rat): 3,200 - 6,400 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 122 ppm  
Exposure time: 6 h  
Method: OECD Test Guideline 403  
GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
GLP: yes

#### Skin corrosion/irritation

##### Components:

##### **triisobutyl phosphate:**

Species: Rabbit

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

Method: OECD Test Guideline 404

Result: No skin irritation

GLP: yes

### Serious eye damage/eye irritation

#### Product:

Remarks: According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

#### Components:

##### **triisobutyl phosphate:**

Species: Rabbit

Result: No eye irritation

### Respiratory or skin sensitisation

#### Product:

Remarks: Causes sensitisation.

#### Components:

##### **triisobutyl phosphate:**

Test Type: Buehler Test

Species: Guinea pig

Assessment: May cause sensitisation by skin contact.

Method: OECD Test Guideline 406

GLP: yes

### Germ cell mutagenicity

#### Components:

##### **triisobutyl phosphate:**

Genotoxicity in vitro

: Test Type: Ames test

Metabolic activation: with and without metabolic activation  
Method: Mutagenicity (Escherichia coli - reverse mutation assay)

Result: negative

GLP: yes

Genotoxicity in vivo

: Test Type: In vivo micronucleus test

Species: Mouse (male and female)

Result: negative

GLP: yes

Germ cell mutagenicity -  
Assessment

: Animal testing did not show any mutagenic effects.

### Carcinogenicity

#### **IARC**

No component of this product present at levels greater than or

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

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 on OSHA's list of regulated carcinogens.

### 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.

### Reproductive toxicity

#### Components:

#### **triisobutyl phosphate:**

Reproductive toxicity - Assessment : No effects on or via lactation

### Aspiration toxicity

#### Product:

No aspiration toxicity classification

### Further information

#### Product:

Remarks: Acute Health Hazard

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 23 mg/l  
Exposure time: 96 h  
Test Type: flow-through test  
GLP: yes

#### Components:

#### **triisobutyl phosphate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 23 mg/l  
Exposure time: 96 h  
Test Type: flow-through test  
GLP: yes

LC50 (Leuciscus idus (Golden orfe)): 17.8 - 21.5 mg/l  
Exposure time: 96 h  
Test Type: static test



# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

Method: DIN 38412

GLP: no

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 11 mg/l  
Exposure time: 48 h

Method: DIN 38412

GLP: no

Toxicity to algae : EC50 (Green algae (Scenedesmus subspicatus)): 34 mg/l

End point: Growth inhibition

Exposure time: 72 h

GLP: no

### Persistence and degradability

#### Product:

Biodegradability : Remarks: No data available

#### Components:

##### triisobutyl phosphate:

Biodegradability

: aerobic

Result: Readily biodegradable.

Biodegradation: 97 %

Exposure time: 14 d

Method: OECD Test Guideline 302

GLP: no

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: No data available

#### Components:

##### triisobutyl phosphate:

Partition coefficient: n-octanol/water

: log Pow: 3.72 (68 °F / 20 °C)

GLP: no

### Mobility in soil

#### Product:

Mobility : Remarks: No data available

### Other adverse effects

#### Product:

Results of PBT and vPvB assessment

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

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

Additional ecological information : Do not allow material to contaminate ground water system.

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

- Waste from residues : Dispose of as hazardous waste in compliance with local and national regulations.  
Dispose of wastes in an approved waste disposal facility.
- Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

Not regulated as a dangerous good

##### IATA-DGR

Not regulated as a dangerous good

##### IMDG-Code

Not regulated as a dangerous good

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### National Regulations

##### 49 CFR

Not regulated as a dangerous good

### 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

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

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

**SARA 311/312 Hazards** : Respiratory or skin sensitisation

**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.

**Please note that Section 3 of this document lists only the hazardous components required by the specific country or region hazard communication regulations. The chemical identifiers listed in Section 3 are used globally for hazard communication purposes and may not reflect those used for chemical inventory coverage in a particular country or region. The chemical inventory information given in Section 15 of this document applies to the product as a whole and should be used when evaluating inventory compliance.**

#### The components of this product are reported in the following inventories:

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
IECSC	On the inventory, or in compliance with the inventory
TCSI	On the inventory, or in compliance with the inventory
US.TSCA	On TSCA 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

# SAFETY DATA SHEET



## DURAD® 40

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

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.