

SAFETY DATA SHEET



DURAD® 48

Version: 1.5

Revision Date: 09/04/2018

Print Date: 03/12/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: DURAD® 48

Product Use Description: Lubricant Additive

Synonyms: tris(2-butoxyethyl) 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 : Lubricant, Additive

Restrictions on use : Restricted to professional users.

SECTION 2. HAZARDS IDENTIFICATION

Form	liquid
Colour	white to beige
Odour	No data available

GHS Classification

Short-term (acute) aquatic hazard : Category 3

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GHS label elements

Hazard statements : H402 Harmful to aquatic life.

Other hazards : None

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

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

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

If inhaled : Remove to fresh air.
Get medical attention.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash skin thoroughly with soap and water for at least 15 minutes.
If skin irritation occurs: Get medical advice/ attention.

In case of eye contact : Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

If swallowed : If conscious, make the victim drink the following:
Drink 1 or 2 glasses of water.
Get medical attention immediately.

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Most important symptoms and effects, both acute and delayed : None known.
Notes to physician : For specialist advice physicians should contact the Poisons Information Service.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : All conventional media are suitable.

Specific hazards during firefighting : Burning produces noxious and toxic fumes.
Thermal decomposition can lead to release of irritating gases and vapours.
Container may explode if heated.
Keep containers and surroundings cool with water spray.

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, protective equipment and emergency procedures : Use personal protective equipment.

Environmental precautions : Avoid release to the environment.

Methods and materials for containment and cleaning up : Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labelled containers.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with skin, eyes and clothing.
Use personal protective equipment as required.
Do not breathe vapours or spray mist.
Use only in well-ventilated areas.
Keep away from fire, sparks and heated surfaces.

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Conditions for safe storage : Keep in a dry, cool and well-ventilated place.
Keep container tightly closed.
Protect from contamination.

Materials to avoid : Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

No hazardous ingredients

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 vapours.
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

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection
Remarks : Impervious gloves

Eye protection : Safety goggles
or
Face-shield

Skin and body protection : To protect against splashes from pouring:
Chemical resistant apron
Impervious clothing
Rubber or plastic boots

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

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Color	: white to beige
Odor	: No data available
Odour Threshold	: No data available
pH	: No data available
Freezing point	: < -70 °C
Boiling point/boiling range	: 215 - 228 °C
Evaporation rate	: 1 (Butyl acetate = 1)
Flash point	: 224 °C Method: Cleveland open cup ASTM D 92
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: < 0.013332 hPa (150 °C)
Relative vapour density	: 13.8
Relative density	: 1.02 (20 °C)
Bulk Density	: 1,020 kg/m ³
<u>Solubility(ies)</u>	
Water solubility	: 1.1 g/l (25 °C)
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: 260 °CAuto-flammability
Viscosity	
Viscosity, dynamic	: 12.2 mPa.s (20 °C)
Viscosity, kinematic	: No data available
Molecular weight	: No data available

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SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Will not occur.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	Carbon oxides Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

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.

Aspiration toxicity

Product:

No aspiration toxicity classification

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : EC50 (Pimephales promelas (fathead minnow)): 16 mg/l
Exposure time: 96 h

EC50 (Oryzias latipes (Orange-red killifish)): 44 mg/l
Exposure time: 48 h
Remarks: 10 °C

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EC50 (Oryzias latipes (Orange-red killifish)): 27 mg/l
Exposure time: 48 h
Remarks: 20 °C

EC50 (Oryzias latipes (Orange-red killifish)): 6.8 mg/l
Exposure time: 48 h
Remarks: 30 °C

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 84 mg/l
Exposure time: 24 h

EC50 (Daphnia magna (Water flea)): 75 mg/l
Exposure time: 48 h

Persistence and degradability

Product:

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

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).

Additional ecological information : Avoid release to the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of waste material in compliance with all federal, state, and local regulations.
Dispose of wastes in an approved waste disposal facility.

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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

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

SARA 311/312 Hazards : No SARA Hazards

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.

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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

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.