

SAFETY DATA SHEET

DURAD® 150B



Version Revision Date: SDS Number: Date of last issue: 10/04/2020
2.0 02/22/2024 203000017222 Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : DURAD® 150B
Product code : 000000000058311152

Manufacturer or supplier's details

Company : LANXESS Corporation
 Product Safety & Regulatory Affairs
 111 RIDC Park West Drive
 Pittsburgh, Pennsylvania 15275-1112

Responsible Department : (800) LANXESS
 (412) 809-1000
 lanxesshes@lanxess.com

Emergency telephone : CHEMTREC (800) 424-9300 or
 (703) 527-3887 (Outside U.S.A) and mention CCN12916.
 Lanxess Emergency Phone (800) 410-3063.

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant
 Additive

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

|| Not a hazardous substance or mixture.

GHS label elements

|| No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

Other hazards

Very toxic to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

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Substance name : Reaction mass of p-t-butylphenyldiphenyl phosphate and bis(p-t-butylphenyl)phenyl phosphate and triphenyl phosphate [TPP>25%]

Components

|| No hazardous ingredients

SECTION 4. FIRST AID MEASURES

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and water.
Get medical attention if symptoms occur.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Get medical attention if symptoms appear.

If swallowed : Rinse mouth with water.
Do not induce vomiting unless directed to do by medical personnel.
Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Symptoms : No information available.
: No symptoms known or expected.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water mist
Carbon dioxide (CO₂)
Dry chemical
Foam

Unsuitable extinguishing : High volume water jet

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media

- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known
- Further information : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus. Wear suitable protective clothing, gloves and eye/face protection.
-

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training.
Put on appropriate personal protection equipment.
Do not touch or walk through spilled material.
Evacuate unnecessary personnel.
Keep unnecessary and unprotected personnel from entering.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so.
Move containers from spill area.
Wash spillages into an effluent treatment plant or proceed as follows.
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).
Dispose of wastes in an approved waste disposal facility.
Do not allow into the sewerage system, surface waters or groundwater or into the soil.
-

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Remove contaminated clothing and protective equipment before entering eating areas.
Workers should wash hands and face before eating, drinking and smoking.
Put on appropriate personal protection equipment.
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Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Conditions for safe storage : Store in accordance with local regulations.
Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
Keep containers sealed until ready for use.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Do not store in unlabeled containers.
Use appropriate container to avoid environmental contamination.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---------------------|----------|-------------------------------|--|----------|
| triphenyl phosphate | 115-86-6 | TWA | 3 mg/m ³ | ACGIH |
| | | TWA | 3 mg/m ³ | OSHA Z-1 |
| triphenyl phosphate | 115-86-6 | TWA | 3 mg/m ³ | ACGIH |
| | | TWA | 3 mg/m ³ | OSHA Z-1 |

Occupational exposure limits of decomposition products

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---------------------|----------|-------------------------------|--|----------|
| triphenyl phosphate | 115-86-6 | TWA | 3 mg/m ³ | ACGIH |
| | | TWA | 3 mg/m ³ | OSHA Z-1 |

Engineering measures : If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection
Material : Nitrile rubber

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Break through time : > 480 min

Glove thickness : 0.4 mm

Remarks : Impervious gloves

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective clothing.
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective measures : These recommendations apply to the product as supplied.
Please follow all applicable local/national requirements when selecting protective measures for a specific workplace.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
Appropriate techniques should be used to remove potentially contaminated clothing.
Wash contaminated clothing before reusing.
Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Physical state : liquid

Color : colorless

Odor : odorless

Odor Threshold : No data available

pH : No data available

Melting point/range : -6 °F / -21 °C

Boiling point/boiling range : No data available

No data available

Flash point : ≥ 390 °F / 199 °C

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Method: Cleveland open cup

Evaporation rate : No data available

Self-ignition : No data available

Burning number : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : < 1 hPa (302 °F / 150 °C)

Relative vapor density : No data available

Relative density : 1.1400 - 1.1800 (68 °F / 20 °C)
Method: No information available.

Density : 1.76 g/cm³ (77 °F / 25 °C)

Solubility(ies)

 Water solubility : 3.2 mg/l (72 °F / 22 °C)

 Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : log Pow: 4.68 (77 °F / 25 °C)

Ignition temperature : 995 °F / 535 °C
Method: ASTM E 659

Decomposition temperature : No data available

Self-Accelerating decomposition temperature (SADT) : No data available

Viscosity

 Viscosity, dynamic : 28.8 - 35.2 mPa.s (104 °F / 40 °C)
Method: ASTM D 445

 Viscosity, kinematic : 48.3 mm²/s (77 °F / 25 °C)
30.8 mm²/s (104 °F / 40 °C)
4.9 mm²/s (212 °F / 100 °C)

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Explosive properties : No data available

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : None known.

Incompatible materials : None known.

Hazardous decomposition products : Oxides of phosphorus
Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Eye contact
Skin contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg
Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD50 Dermal (Rat): > 2,000 mg/kg
Remarks: Information given is based on data obtained from similar substances.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

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Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC No ingredient 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 ingredient 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

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Further information

Product:

Remarks : The toxicological data has been taken from products of similar composition.

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Fish): 0.8 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.202 mg/l
Exposure time: 48 h

Toxicity to fish (Chronic toxicity) : NOEC: 0.093 mg/l
Exposure time: 90 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.0399 mg/l
Exposure time: 21 d

Persistence and degradability

Product:

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential

Product:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 1,850

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Avoid release to the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to

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determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

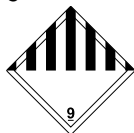
Waste from residues : The generation of waste should be avoided or minimized wherever possible.
This material and its container must be disposed of in a safe way.
Empty containers retain product residue; observe all precautions for product.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(PHENOL, ISOBUTYLENATED, PHOSPHATE (TRIPHENYL PHOSPHATE>25%))
Class : 9
Packing group : III
Labels : 9



Packing instruction (cargo aircraft) : 964 : 450.00 L
Packing instruction (passenger aircraft) : 964 : 450.00 L
Environmentally hazardous : yes



IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(PHENOL, ISOBUTYLENATED, PHOSPHATE (TRIPHENYL PHOSPHATE>25%))

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Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

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

Massachusetts Right To Know

| | | |
|---------------------|----------|-------|
| triphenyl phosphate | 115-86-6 | > 1 |
| phenol | 108-95-2 | < 0.1 |

Pennsylvania Right To Know

| | | |
|--------------------------------------|------------|-------|
| tert-butylphenyl diphenyl phosphate | 56803-37-3 | > 1 |
| triphenyl phosphate | 115-86-6 | > 1 |
| di-tert-butylphenyl phenyl phosphate | 65652-41-7 | > 1 |
| tris(p-tert-butylphenyl) phosphate | 78-33-1 | > 1 |
| phenol | 108-95-2 | < 0.1 |

California Prop. 65

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

TSCA inventory

TSCA : All substances listed as active on the TSCA inventory, This product is subject under TSCA 5(a) to Proposed Significant New Use Restrictions (SNUR).

TSCA list

The following substance(s) is/are subject to a Significant New Use Rule:
triphenyl phosphate 115-86-6 Proposed Rule

The following substance(s) is/are subject to TSCA 12(b) export notification requirements:
triphenyl phosphate 115-86-6

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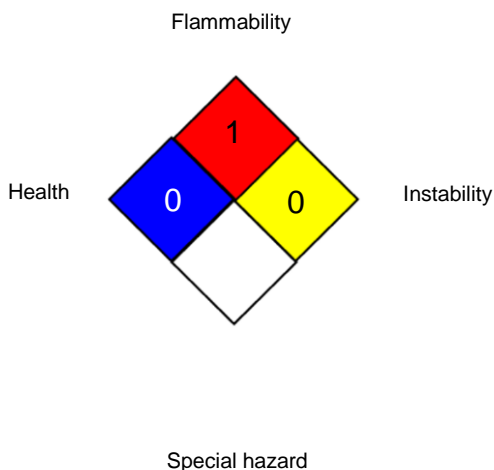


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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

| | | |
|-----------------|---|---|
| HEALTH | / | 0 |
| FLAMMABILITY | | 1 |
| PHYSICAL HAZARD | | 0 |

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

- ACGIH : USA. ACGIH Threshold Limit Values (TLV)
- OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
- ACGIH / TWA : 8-hour, time-weighted average
- OSHA Z-1 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety

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and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. 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 to be a guidance for processing and does not contain any 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. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.