

SAFETY DATA SHEET

DURAD® 220B



Version Revision Date: SDS Number: Date of last issue: 04/11/2022
3.0 06/20/2024 203000017179 Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : DURAD® 220B
Product code : 000000000058311194

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 : Lubricants and lubricant additives
Restrictions on use : Restricted to professional users.

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

|| Not a hazardous substance or mixture.

Other hazards

Toxic to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance
Substance name : Alkylated triphenyl phosphate esters

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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 symptoms known or expected.
See Section 11 for more detailed information on health effects and symptoms.
Get medical attention if symptoms appear.

Effects : No information available.

Protection of first-aiders : 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.
For specialist advice physicians should contact the Poisons Information Service.
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : Do NOT use water jet.

Specific hazards during fire fighting : Burning produces irritant fumes.
Exposure to decomposition products may be a hazard to health.

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- Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Oxides of phosphorus
- Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.
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.
Use personal protective equipment.
-

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 personnel to safe areas.
Keep unnecessary and unprotected personnel from entering.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so.
Move containers from spill area.
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.
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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.
Eating, drinking and smoking should be prohibited in areas
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where this material is handled, stored and processed.
Use with adequate ventilation.
Do not breathe vapors or spray mist.

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 container closed when not in 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 : Stable under recommended storage conditions.

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

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 : Use local ventilation to keep levels below established threshold values.
Local ventilation is needed in the presence of airborne mists.
Adequate general ventilation is recommended when handling to control airborne levels.
Use mechanical ventilation for general area control.

Personal protective equipment

Respiratory protection : Respirator with combination filter for vapour/particulate
Filter type : ABEK-P2-filter

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Hand protection
Material : Nitrile rubber
Break through time : > 480 min
Glove thickness : 0.4 mm

Remarks : Before removing gloves clean them with soap and water. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Long sleeve gloves Request information on glove permeation properties from the glove supplier.

Eye protection : Safety glasses with side-shields

Skin and body protection : Impervious clothing

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 : clear

Odor : odorless

Odor Threshold : No data available

pH : Not applicable

Melting point/range : -6 °F / -21 °C

Boiling point/boiling range : > 572 °F / > 300 °C
(1,013 hPa)

Flash point : > 428 °F / > 220 °C

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Evaporation rate : No data available

Flammability (solid, gas) : No data available

Flammability (liquids) : Not classified as supporting combustion according to the transport regulations.

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 : < 0.000001 hPa (68 °F / 20 °C)
0.044 hPa (302 °F / 150 °C)

Relative vapor density : No data available

Relative density : 1.17 (68 °F / 20 °C)

Density : 1.15 g/cm³

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 : 1040 °F / 560 °C
Auto-flammability

Decomposition temperature : > 572 °F / > 300 °C

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
120 mPa.s (77 °F / 25 °C)

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Viscosity, kinematic : 115.2 mm²/s (77 °F / 25 °C)
42.0 mm²/s (104 °F / 40 °C)
5.5 mm²/s (212 °F / 100 °C)

Explosive properties : No data available

Oxidizing properties : No data available

Surface tension : No data available

Molecular weight : No data available

Particle size : Not applicable

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 : Will not occur.

Conditions to avoid : None known.

Incompatible materials : None known.

Hazardous decomposition products : Oxides of phosphorus
Carbon dioxide (CO₂)
Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

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.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

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Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.
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 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

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.

Domestic regulation

49 CFR


UN/ID/NA number : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(PHENOL, ISOBUTYLENATED, PHOSPHATE (TRIPHENYL PHOSPHATE ≥ 2,5<25%))
Class : 9


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Packing group : III
Labels : 9
: 

ERG Code : 171
Marine pollutant : yes


Hazard and Handling Notes.
Keep separated from foodstuffs

Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA 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
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Pennsylvania Right To Know

tert-butylphenyl diphenyl phosphate	56803-37-3	> 1
di-tert-butylphenyl phenyl phosphate	65652-41-7	> 1
triphenyl phosphate	115-86-6	> 1
tris(p-tert-butylphenyl) phosphate	78-33-1	> 1

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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

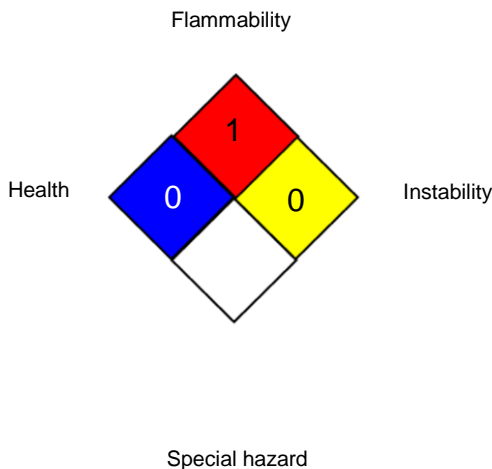
The following substance(s) is/are subject to a Significant New Use Rule:
triphenyl phosphate 115-86-6 See 40 CFR 721.11780; Proposed Rule
Proposed Rule

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

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 "0" 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 Lim-

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its 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 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; TECL - 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.

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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.