



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

April 19, 2023

Christina M. Kurtz  
Regulations and Packaging Manager  
Arkema Inc.  
900 First Avenue  
King of Prussia, PA 19406

Reference No. 23-0028

Dear Mrs. Kurtz:

This letter is in response to your March 21, 2023, email and subsequent email conversation requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to requirements for the highway transportation of a Division 5.2 organic peroxide with a Class 1 subsidiary hazard. Specifically, you ask whether a highway motor carrier that transports “UN3102, Organic peroxide type B, solid (Dibenzoyl Peroxide, >51-100%), 5.2, (1)” is required to obtain a Hazardous Materials Safety Permit (HMSP) from the Federal Motor Carrier Safety Administration (FMCSA).

The answer is no, based on this Office’s understanding of the FMCSA’s relevant requirements in the Federal Motor Carrier Safety Regulations—see 49 CFR 385.403. UN3102 has a primary hazard class of “5.2” (organic peroxide) as listed in Column 3 of the § 172.101 Hazardous Materials Table, along with label codes indicating “5.2, 1” in Column 6. The first code is indicative of the primary hazard and additional codes are indicative of subsidiary hazards. The reference to Division 1.1, 1.2, 1.3, or 1.5 material in the applicability of the HMSP refers to the primary hazard class, not subsidiary hazard(s). UN3102 is not defined as a Class 1 explosive and does not have a division assignment, therefore the HMSP requirements do not apply .

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

Dirk Der Kinderen  
Chief, Standards Development Branch  
Standards and Rulemaking Division



March 21, 2023

Standards and Rulemaking Division  
Pipeline and Hazardous Materials Safety Administration  
Attn: PHH-10  
U.S. Department of Transportation  
East Building, 1200 New Jersey, SE  
Washington, D.C. 20590-0001

Re: Luperox A98 and classification; Citations: 49CFR §173.225(c), §172.411, §172.505, §385.403(b) and UN Manual of Test Criteria Parts I and II

Dear Mr. Kelley,

Arkema Inc. ships our Luperox ®A98 as UN3102, Organic Peroxide Type B Solid (Dibenzoyl Peroxide, >51-100%), 5.2, (1) as defined in 49CFR §173.225 (c). SDS attached.

UN3102 materials are classified as organic peroxides 5.2 based on testing criteria in the UN Manual of Test Criteria in Part II. These materials are classified as subsidiary explosives (1) because they do not fit the criteria as primary explosives with division numbers 1.1 – 1.6 as defined in the UN Manual of Test Criteria in Part I.

The Federal Motor Carrier and Safety Administration requires a Hazardous Materials Safety Permit for Explosives 1.1, 1.2, 1.3 and 1.5 per §385.403 (b). After review of the referenced section Arkema Inc. determined we do not believe we need a FMCSA HMSP because Luperox ®A98 is an organic peroxide. With the assistance of Charles Odum, Sr. SISP Coordinator, James Simmons, Hazmat Program Manager, FMCSA emailed us and stated that since our material is a 5.2 it is not required to have the FMCSA's HMSP. Email attached.

We sent the email and conferenced with one of our carriers. Unfortunately, they stated this is a gray area and they require more than an email and would like an interpretation from PHMSA.

Could you please confirm Arkema Inc.'s and James Simmons interpretation of the hazmat regulations and thus, the HMSP is not needed for a material classified as a 5.2, (1).

Note: The subsidiary explosive label exhibited in §172.411 does not contain a division number. Also, per §172.505 placards are not required for subsidiary explosive materials.

Sincerely,

*Christina M Kurtz*

Christina M Kurtz  
Manager – Regulations and Packaging  
Arkema Inc.

Attached:     SDS for Luperox A98  
                  Email from PHMSA with FMCSA statement

**LUPEROX® A98**
**1. PRODUCT AND COMPANY IDENTIFICATION**
**Company**

Arkema Inc.  
 900 First Avenue  
 King of Prussia, Pennsylvania 19406

**Functional Additives**

**Customer Service Telephone Number:** (800) 331-7654  
 (Monday through Friday, 8:00 AM to 5:00 PM EST)

**Emergency Information**

**Transportation:** CHEMTREC: (800) 424-9300  
 (24 hrs., 7 days a week)  
**Medical:** Rocky Mountain Poison Center: (866) 767-5089  
 (24 hrs., 7 days a week)

**Product Information**

**Product name:** LUPEROX® A98  
**Synonyms:** Benzoyl peroxide, BPO  
**Molecular formula:** C14 H10 O4  
**Chemical family:** Organic peroxide - diacyl peroxides  
**Product use:** Polymerization inhibitor

**2. HAZARDS IDENTIFICATION**
**Emergency Overview**

**Color:** white  
**Physical state:** solid  
**Form:** granules  
**Odor:** none

**\*Classification of the substance or mixture:**

Organic peroxides, Type B, H241  
 Eye irritation, Category 2B, H320  
 Skin sensitisation, Category 1, H317  
 Acute aquatic toxicity, Category 1, H400  
 Chronic aquatic toxicity, Category 1, H410

\*For the full text of the H-Statements mentioned in this Section, see Section 16.

**LUPEROX® A98****GHS-Labeling**

Hazard pictograms:



Signal word:

**Danger****Hazard statements:**

H241 : Heating may cause a fire or explosion.

H317 : May cause an allergic skin reaction.

H320 : Causes eye irritation.

H410 : Very toxic to aquatic life with long lasting effects.

**Supplemental Hazard Statements:**

Organic peroxide.

Hazardous decomposition may occur.

Sensitive to shock.

May form combustible dust concentrations in air.

# LUPEROX® A98

## Precautionary statements:

### Prevention:

P210 : Keep away from heat, sparks, open flames, hot surfaces. No smoking.  
P220 : Keep/Store away from clothing/ combustible materials.  
P234 : Keep only in original container.  
P261 : Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 : Wash skin thoroughly after handling.  
P272 : Contaminated work clothing should not be allowed out of the workplace.  
P273 : Avoid release to the environment.  
P280 : Wear protective gloves or eye protection or face protection.

### Response:

P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P333 + P313 : If skin irritation or rash occurs: Get medical advice/ attention.  
P337 + P313 : If eye irritation persists: Get medical advice/ attention.  
P363 : Wash contaminated clothing before reuse.  
P391 : Collect spillage.

### Storage:

P410 : Protect from sunlight.  
P411 + P235 : Maximum storage temperature is specified on label and in section 7 of SDS. Keep cool.  
P420 : Store away from other materials.

### Disposal:

P501 : Dispose of contents or container to an approved waste disposal plant.

## Supplemental information:

### Potential Health Effects:

Product dust may be irritating to eyes, skin and respiratory system. (based on a report of occupational exposure to workers)

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Dibenzoyl peroxide	94-36-0	>= 98.5 %	H241, H320, H317, H400, H410

**LUPEROX® A98**

\*\*For the full text of the H-Statements mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES****4.1. Description of necessary first-aid measures:****Inhalation:**

If inhaled, remove victim to fresh air.

**Skin:**

In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eyes:**

Immediately flush eye(s) with plenty of water. Get medical attention.

**Ingestion:**

If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

**4.2. Most important symptoms/effects, acute and delayed:**

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Statements and Supplemental Information if applicable) and Section 11 (Toxicology Information) of this SDS.

**4.3. Indication of immediate medical attention and special treatment needed, if necessary:**

Unless otherwise noted in Notes to Physician, no specific treatment noted; treat symptomatically.

**5. FIREFIGHTING MEASURES****Extinguishing media (suitable):**

Water spray, Foam, Dry chemical

**Extinguishing media (unsuitable):**

High volume water jet

**Protective equipment:**

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

**Further firefighting advice:**

Do not use a solid stream of water.

A solid stream of water can cause a dust explosion.

Fight fire with large amounts of water from a safe distance.

Cool closed containers exposed to fire with water spray.

Closed containers of this material may explode when subjected to heat from surrounding fire.

After a fire, wait until the material has cooled to room temperature before initiating clean-up activities.

Do not allow run-off from fire fighting to enter drains or water courses.

Fire fighting equipment should be thoroughly decontaminated after use.

**LUPEROX® A98****Fire and explosion hazards:**

Contact with materials to avoid or exposure to temperatures exceeding the SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may autoignite.

When burned, the following hazardous products of combustion can occur:

Carbon oxides

Hazardous organic compounds

Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables.

Note: Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come into contact with the material or its container.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:**

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid dust formation and dispersal of dust in the air. Wet down (dampen) the spilled material with water. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Implement workplace practices such that dusts are not allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

**Protective equipment:**

Appropriate personal protective equipment is set forth in Section 8.



**LUPEROX® A98****7. HANDLING AND STORAGE****Handling****General information on handling:**

Contact with materials to avoid or exposure to temperatures exceeding the SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may autoignite.

Avoid breathing dust.

Avoid contact with eyes.

Avoid prolonged or repeated contact with skin.

Keep away from heat, sparks and flames.

Dry material is shock sensitive and can decompose violently.

Use with explosion proof equipment.

No smoking.

Use only with adequate ventilation.

Wash thoroughly after handling.

Prevent product contamination.

Keep container tightly closed and away from combustible materials.

Keep only in the original container.

Avoid creating dust in handling, transfer or clean up.

Prevent dust accumulation.

Implement routine housekeeping practices to ensure that dusts do not accumulate on surfaces.

Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.

Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.

Container hazardous when empty.

Follow label warnings even after container is emptied.

RESIDUAL DUSTS MAY EXPLODE ON IGNITION.

DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.

Do not reuse container as it may retain hazardous product residue.

Improper disposal or reuse of this container may be dangerous and/or illegal.

Emptied container retains product residue.

**Storage****General information on storage conditions:**

Segregated or detached storage is preferred. Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Store out of direct sunlight in a cool well-ventilated place. Store in original container. Store away from combustibles and materials to avoid. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes, which pertain to the specific local conditions of storage and use, including NFPA 654.

Refer also to National Fire Protection Association (NFPA) Code 400, Hazardous Materials Code.

**Storage stability – Remarks:**

Follow the recommended storage temperatures provided in this Section in order to maintain stability and oxygen content. Shock sensitive material; do NOT drop or drag containers.

**Storage incompatibility – General:**

Store separate from:

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Strong acids  
Strong bases  
Strong oxidizing agents  
Reducing agents  
Amines  
Accelerators  
Friedel - Crafts reaction catalyst  
Iron  
Copper  
Brass

For all Organic Peroxides, compatible materials of contact are stainless steel 304 or 316 (preferred), high-density polyethylene (HDPE), polytetrafluoroethylene or glass linings.

**Temperature tolerance – Do not store above:**  
100 °F (38 °C)

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Airborne Exposure Guidelines:

#### **Dibenzoyl peroxide (94-36-0)**

US. ACGIH Threshold Limit Values

Time weighted average	5 mg/m <sup>3</sup>
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US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL:	5 mg/m <sup>3</sup>
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Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

### **Engineering controls:**

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Check that all dust control equipment such as local exhaust ventilation, material transport systems, and air-material separation devices involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Isolation devices may be appropriate to prevent propagation from one unit to another. Ensure that dust-handling systems are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Consult ACGIH ventilation manual, NFPA Standard 91 and NFPA Standard 654 for design of exhaust system and safe handling.

### **Respiratory protection:**

Avoid breathing dust. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its

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components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

### Skin protection:

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse immediately if skin is contaminated. Wash contaminated clothing and clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

### Eye protection:

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment immediately available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Color:</b>	white
<b>Physical state:</b>	solid
<b>Form:</b>	granules
<b>Odor:</b>	none
<b>Odor threshold:</b>	No data available
<b>Flash point</b>	The flashpoint of this product is greater than the Self Acceleration Decomposition Temperature (SADT).
<b>Auto-ignition temperature:</b>	No data available.
<b>Lower flammable limit (LFL):</b>	No data available
<b>Upper flammable limit (UFL):</b>	No data available
<b>pH:</b>	No data available
<b>Density:</b>	No data available
<b>Specific Gravity (Relative density):</b>	No data available
<b>Bulk density:</b>	511 kg/m <sup>3</sup>
<b>Boiling point/boiling range:</b>	Decomposes before boiling. Rate of decomposition increases with rising temperature.

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<b>Melting point/range:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Evaporation rate:</b>	No data available
<b>Solubility in water:</b>	insoluble
<b>Viscosity, dynamic:</b>	No data available
<b>% Volatiles:</b>	0 %
<b>Oil/water partition coefficient:</b>	No data available.
<b>Self-Accelerating Decomposition Temperature (SADT):</b>	154 °F (68 °C) 1 pound Bag
<b>Thermal decomposition:</b>	Decomposes on heating.
<b>Active oxygen content:</b>	6.47 %
<b>Flammability:</b>	See GHS Classification in Section 2 if applicable

## 10. STABILITY AND REACTIVITY

### Stability:

This material is chemically unstable and should only be handled under specified conditions. See HANDLING AND STORAGE section of this MSDS for specified conditions.

### Hazardous reactions:

Hazardous polymerization does not occur.

### Materials to avoid:

Strong acids  
Strong bases  
Strong oxidizing agents  
Reducing agents  
Accelerators  
Friedel - Crafts reaction catalyst  
Amines  
Brass  
Copper  
Iron

For all Organic Peroxides, compatible materials of contact are stainless steel 304 or 316 (preferred), high-density polyethylene (HDPE), polytetrafluoroethylene or glass linings.

### Conditions / hazards to avoid:

SADT - Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may autoignite. The length of time to generate a decomposition reaction, after the SADT has been reached or

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exceeded, is dependent upon how much the SADT has been exceeded and the length of time needed for the reaction exotherm (heat spike from increasing decomposition rate) to initiate a rapid decomposition reaction. Typically, SADT is inversely proportional to package size. Larger packages will have a lower SADT due to smaller ratio to heat transfer area to volume of product. See HANDLING AND STORAGE section of this MSDS for specified conditions. See Hazardous Decomposition Products below.

### Hazardous decomposition products:

Temperatures at or above SADT can result in the release of hazardous decomposition products which are flammable and may autoignite.

Thermal decomposition giving flammable and toxic products :

Carbon oxides

Hazardous organic compounds

## 11. TOXICOLOGICAL INFORMATION

Data on this material and/or a similar material are summarized below.

### Data for Dibenzoyl peroxide (94-36-0)

#### Acute toxicity

##### **Oral:**

Practically nontoxic. (rat) LD<sub>0</sub> > 5,000 mg/kg. (78 %)

##### **Inhalation:**

No deaths occurred. (rat) 4 h LC<sub>0</sub> = 24.3 mg/l. (78 %) (dust/mist)

##### **Skin Irritation:**

Not irritating. (rabbit) (4 h) (78 %)

##### **Eye Irritation:**

Causes eye irritation. (rabbit) (78 %)

##### **Skin Sensitization:**

May cause allergic skin reaction. LLNA: Local Lymph Node Assay. (mouse) Skin allergy was observed. (Strong sensitizer)

May cause allergic skin reaction. Buehler Test. (guinea pig) Skin allergy was observed.

#### Repeated dose toxicity

Repeated dietary administration to rat / affected organ(s): testes / signs: atrophy / (Repeated exposure at high concentrations)

Chronic dermal administration to rat, mouse / No adverse systemic effects reported.

#### Carcinogenicity

Chronic dietary, dermal administration to rat and mouse / No increase in tumor incidence was reported. Classified by the International Agency for Research on Cancer as: Group 3: Unclassifiable as to carcinogenicity in humans.

#### Genotoxicity

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**Assessment in Vitro:**

No genetic changes were observed in laboratory tests using: bacteria, animal cells

**Genotoxicity**

**Assessment in Vivo:**

No genetic changes were observed in laboratory tests using: mice

**Developmental toxicity**

Exposure during pregnancy. Oral (rat) / No birth defects were observed. (delays in development)

**Reproductive effects**

Reproductive/Developmental Effects Screening Assay. Oral (rat) / No toxicity to reproduction / (reductions in birth weight, decreased growth rate)

**Human experience**

**Inhalation:**

Throat: irritating. (dust) (based on reports of occupational exposure to workers)

Nose: irritating. (dust) (based on reports of occupational exposure to workers)

**Human experience**

**Skin contact:**

Skin: Skin allergy was observed. (repeated or prolonged exposure) (studied using human volunteers)

<b>12. ECOLOGICAL INFORMATION</b>
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**Chemical Fate and Pathway**

Data on this material and/or a similar material are summarized below.

**Data for Dibenzoyl peroxide (94-36-0)**

**Biodegradation:**

Readily biodegradable. (28 d) biodegradation 71 % / OECD Test Guideline 301 D

**Octanol Water Partition Coefficient:**

log Pow: = 3.2

**Ecotoxicology**

Data on this material and/or a similar material are summarized below.

**Data for Dibenzoyl peroxide (94-36-0)**

**Aquatic toxicity data:**

Very toxic. Oncorhynchus mykiss (rainbow trout) 96 h LC50 = 0.0602 mg/l

**Aquatic invertebrates:**

Very toxic. Daphnia magna (Water flea) 48 h EC50 (Immobilization) = 0.11 mg/l

**Algae:**

Very toxic. Pseudokirchneriella subcapitata (green algae) 72 h ErC50 = 0.071 mg/l

**Microorganisms:**

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Respiration inhibition / Activated sludge 30 min EC50 = 35 mg/l

## Chronic toxicity to aquatic invertebrates:

Very toxic. Daphnia magna (Water flea) 21 d EC10 (Reproduction inhibition) = 0.001 mg/l

## Chronic toxicity to aquatic plants:

Toxic. Pseudokirchneriella subcapitata (green algae) 72 h NOEC = 0.02 mg/l

## 13. DISPOSAL CONSIDERATIONS

### Waste disposal:

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Take appropriate measures to prevent release to the environment.

## 14. TRANSPORT INFORMATION

### US Department of Transportation (DOT)

UN Number : 3102  
Proper shipping name : Organic peroxide type B, solid  
Technical name : (Dibenzoyl peroxide, >51-100)  
Class : 5.2  
Subsidiary hazard class : (1)  
Marine pollutant : yes

### Special Shipping Information: SUBSIDIARY EXPLOSIVE

### International Maritime Dangerous Goods Code (IMDG)

UN Number : 3102  
Proper shipping name : ORGANIC PEROXIDE TYPE B, SOLID  
Technical name : (DIBENZOYL PEROXIDE, >51-100)  
Class : 5.2  
Marine pollutant : yes

## 15. REGULATORY INFORMATION

### Chemical Inventory Status

United States TSCA Inventory	TSCA	The components of this product are all on the TSCA Inventory.
Canadian Domestic Substances List (DSL)	DSL	All components of this product are on the Canadian DSL

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China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Conforms to
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Conforms to
Australia Inventory of Chemical Substances (AICS)	AICS	Conforms to

## United States – Federal Regulations

### SARA Title III – Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

### SARA Title III - Section 311/312 Hazard Categories:

Fire Hazard, Reactivity Hazard, Acute Health Hazard

### SARA Title III – Section 313 Toxic Chemicals:

The following components are subject to reporting levels established by SARA Title III, Section 313:

<u>Chemical name</u>	<u>CAS-No.</u>	<u>De minimis concentration</u>	<u>Reportable threshold:</u>
Dibenzoyl peroxide	94-36-0	1.0 %	25000 lbs (Manufacturing and processing) 10000 lbs (Otherwise used (non-manufacturing/processing))

### Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

<u>Chemical name</u>	<u>CAS-No.</u>	<u>Reportable quantity</u>
Benzoic acid	65-85-0	5000 lbs

## United States – State Regulations

### New Jersey Right to Know

<u>Chemical name</u>	<u>CAS-No.</u>
Dibenzoyl peroxide	94-36-0

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## New Jersey Right to Know – Special Health Hazard Substance(s)

<u>Chemical name</u>	<u>CAS-No.</u>
Dibenzoyl peroxide	94-36-0

## Pennsylvania Right to Know

<u>Chemical name</u>	<u>CAS-No.</u>
Dibenzoyl peroxide	94-36-0

Benzoic acid	65-85-0
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## Pennsylvania Right to Know – Environmentally Hazardous Substance(s)

<u>Chemical name</u>	<u>CAS-No.</u>
Dibenzoyl peroxide	94-36-0
Benzoic acid	65-85-0

## California Prop. 65

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

## 16. OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3.

H241	Heating may cause a fire or explosion.
H317	May cause an allergic skin reaction.
H320	Causes eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

### Miscellaneous:

Other information:	Refer to National Fire Protection Association (NFPA) Code 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.
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### Latest Revision(s):

Reference number:	200014096
Date of Revision:	11/25/2019
Date Printed:	11/26/2019

LUPEROX® is a registered trademark of Arkema Inc.

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**LUPEROX® A98**

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, ARKEMA expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; **NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN.** The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement. See SDS for Health & Safety Considerations.

*Arkema has implemented a Medical Policy regarding the use of Arkema products in Medical Devices applications that are in contact with the body or circulating bodily fluids (<http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>) Arkema has designated Medical grades to be used for such Medical Device applications. Products that have not been designated as Medical grades are not authorized by Arkema for use in Medical Device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in Medical Device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.*

*It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies) It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.*



## KURTZ Christina

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**From:** Odum, Charles (PHMSA) <charles.odum@dot.gov>  
**Sent:** Friday, January 13, 2023 11:28 AM  
**To:** KURTZ Christina  
**Subject:** HMSP

Christina,

The information below is from James Simmons, Hazmat Program Manager, at FMCSA.

*Title 49 of the Code of Federal Regulations, section 385.403, provides that a motor carrier may not transport in interstate or intrastate commerce any of the following hazardous materials, in the quantity indicated for each, unless the motor carrier holds a safety permit:*

- (a) A highway route-controlled quantity of a Class 7 (radioactive) material, as defined in 49 CFR § 173.403;*
- (b) More than 25 kg (55 pounds) net weight of a Division 1.1, 1.2, or 1.3 (explosive) material or articles or an amount of a Division 1.5 (explosive) material requiring placarding under 49 CFR part 172;*
- (c) More than one liter (1.08 quarts) per package of a "material poisonous by inhalation," as defined in 49 CFR § 171.8, that meets the criteria for "hazard zone A," as specified in 49 CFR § 173.116(a) or § 173.133(a);*
- (d) A "material poisonous by inhalation," in a "bulk packaging," both as defined in 49 CFR § 171.8, that meets the criteria for "hazard zone B," as specified in 49 CFR § 173.116(a) or § 173.133(a);*
- (e) A "material poisonous by inhalation," as defined in 49 CFR § 171.8, that meets the criteria for "hazard zone C," or "hazard zone D," as specified in 49 CFR § 173.116(a), in a packaging having a capacity equal to or greater than 13,248 L (3,500) gallons; or*
- (f) A shipment of methane (compressed or refrigerated liquid), natural gas (compressed or refrigerated liquid), or any other compressed or refrigerated liquefied gas with a methane content of at least 85 percent, in bulk packaging having a capacity equal to or greater than 13,248 L (3,500 gallons).*

***The definitions of explosive and oxidizer are different and the Division 5.2 is not listed to require a HMSP; therefore, not required to have FMCSA's HMSP.***

Hopefully, this will get your packages moving, again.

Respectfully,

**Charles Odum**

Systems Integrity Safety Program Coordinator, Office of Hazardous Materials Safety

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