

**LUPEROX® EZD-SP2****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® EZD-SP2  
**Synonyms:** Not available  
**Molecular formula:** Complex Mixture  
**Chemical family:** Organic peroxide - dialkyl peroxides  
**Product use:** Cross-linking agent for polymers and elastomers

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

**Color:** yellow-orange  
**Physical state:** solid  
**Form:** powder  
**Odor:** Ether-like (slightly)

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

Organic peroxides, Type E, H242  
Skin irritation, Category 2, H315  
Serious eye damage, Category 1, H318

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

**LUPEROX® EZD-SP2****GHS-Labeling**

Hazard pictograms:



Signal word:

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

H242 : Heating may cause a fire.  
H315 : Causes skin irritation.  
H318 : Causes serious eye damage.  
H402 : Harmful to aquatic life.

**Supplemental Hazard Statements:**

Organic peroxide.  
Hazardous decomposition may occur.  
May form combustible dust concentrations in air.

**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.  
P264 : Wash skin thoroughly after handling.  
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.  
P310 : Immediately call a POISON CENTER or doctor.  
P332 + P313 : If skin irritation occurs: Get medical advice/ attention.  
P362 : Take off contaminated clothing and wash before reuse.

**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.

**LUPEROX® EZD-SP2**

**Supplemental information:**

**Potential Health Effects:**

If inhaled: Dust may cause respiratory tract irritation.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical Name  | CAS-No.      | Wt/Wt           | GHS Classification**         |
|--|--------------|-----------------|------------------------------|
| Silica gel, pptd., cryst.-free   | 112926-00-8  | >= 30 - <= 77 % | Not classified               |
| Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis[(1,1-dimethylethyl)] | 78-63-7      | >= 30 - <= 60 % | H227, H242, H315             |
| Anti-oxidizing agent   | Proprietary* | >= 1 - <= 5 %   | H302, H318, H402             |
| 1,2-Dioxane, 3,3,6,6-tetramethyl-                                      | 22431-89-6   | >= 1 - <= 5 %   | H242, H226, H335, H319, H315 |
| Pentene, 2,4,4-trimethyl-  | 25167-70-8   | > 0.1 - < 1 %   | H225, H304, H336, H400, H410 |

\*The specific chemical identity is withheld because it is trade secret information of Arkema Inc.

\*\*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. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Skin:**

**LUPEROX® EZD-SP2**

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

**Eyes:**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

**Ingestion:**

If swallowed, DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give a cupful of water. 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.

Fire fighting equipment should be thoroughly decontaminated after use.

**Fire and explosion hazards:**

**LUPEROX® EZD-SP2**

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:

Methane

Ethane

Tertiary-butanol

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® EZD-SP2****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.

Do not taste or swallow.

Do not get in eyes, on skin, or on clothing.

Do not breathe dust.

Keep away from heat, sparks and flames.

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.

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

Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Segregated or detached storage is preferred. 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. Refer also to National Fire Protection Association (NFPA) Code 400, Hazardous Materials Code. 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.

**Storage stability – Remarks:**

Follow the recommended storage temperatures provided in this Section in order to maintain stability and oxygen content.

**Storage incompatibility – General:**

Store separate from:

Strong acids

Strong oxidizing agents

**LUPEROX® EZD-SP2**

Reducing agents  
 Accelerators  
 Friedel - Crafts reaction catalyst  
 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.

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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Airborne Exposure Guidelines:**

**Silica gel, pptd., cryst.-free (112926-00-8)**

US. OSHA Table Z-3 (29 CFR 1910.1000)

|                       |   |
|-----------------------|---|
| Time weighted average | 20millions of particles per cubic foot of air |
|-----------------------|---|

US. OSHA Table Z-3 (29 CFR 1910.1000)

|                       |           |
|-----------------------|-----------|
| Time weighted average | 0.8 mg/m3 |
|-----------------------|-----------|

**Remarks:** The exposure limit is calculated from the equation,  $80/(\%SiO_2)$ , using a value of 100% SiO<sub>2</sub>. Lower values of % SiO<sub>2</sub> will give higher exposure limits.

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:**

**LUPEROX® EZD-SP2**

Do not breathe 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 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 a face shield, chemical goggles, and have eye flushing equipment immediately available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|   |  |
|---|--|
| <b>Color:</b>                               | yellow-orange  |
| <b>Physical state:</b>                      | solid  |
| <b>Form:</b>                                | powder   |
| <b>Odor:</b>                                | Ether-like (slightly)  |
| <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>                                  | Not applicable   |
| <b>Density:</b>                             | No data available  |
| <b>Specific Gravity (Relative density):</b> | No data available  |
| <b>Bulk density:</b>                        | No data available  |



**LUPEROX® EZD-SP2**

|   |   |
|---|---|
| <b>Boiling point/boiling range:</b>                                 | Decomposes before boiling. Rate of decomposition increases with rising temperature. |
| <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>Solubility in other solvents: [qualitative and quantitative]</b> | miscible with most organic solvents   |
| <b>Viscosity, dynamic:</b>  | No data available   |
| <b>Particle size:</b>   | No data available   |
| <b>Oil/water partition coefficient:</b>                             | No data available.  |
| <b>Self-Accelerating Decomposition Temperature (SADT):</b>          | estimated 180 °F (82 °C) 100 pound container  |
| <b>Thermal decomposition:</b>                                       | No data available   |
| <b>Active oxygen content:</b>                                       | 3.31 - 8.48 %   |
| <b>Flammability:</b>  | See GHS Classification in Section 2 if applicable                                   |

|                                     |
|-------------------------------------|
| <b>10. STABILITY AND REACTIVITY</b> |
|-------------------------------------|

**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 oxidizing agents  
 Reducing agents  
 Accelerators  
 Friedel - Crafts reaction catalyst  
 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.

**LUPEROX® EZD-SP2****Conditions / hazards to avoid:**

See HANDLING AND STORAGE section of this MSDS for specified conditions. 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 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.

**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

Ethane

Methane

Tertiary-butanol

**11. TOXICOLOGICAL INFORMATION**

Data on this material and/or its components are summarized below.

**Data for LUPEROX® EZD-SP2****Acute toxicity****Oral:**

Acute toxicity estimate > 5,000 mg/kg.

**Dermal:**

Acute toxicity estimate > 5,000 mg/kg.

**Data for Silica gel, pptd., cryst.-free (112926-00-8)****Acute toxicity****Oral:**

No deaths occurred. (rat) LD0 > 5,000 mg/kg.

**Dermal:**

No deaths occurred. (rabbit) LD0 > 5,000 mg/kg.

**Inhalation:**

No deaths occurred. (rat) 4 h LC0 >= 2.08 mg/l. (dust/mist)

**Skin Irritation:**

Practically non-irritating. (rabbit) OECD Test Guideline 404 0-2 / 8. (4 h)

**Eye Irritation:**

Causes mild eye irritation. (rabbit)

**LUPEROX® EZD-SP2****Skin Sensitization:**

Not a sensitizer. Guinea pig maximization test. (guinea pig) No skin allergy was observed.

**Repeated dose toxicity**

Repeated inhalation administration to rat / affected organ(s): lung, lymph node / signs: inflammation / No adverse systemic effects reported. (Local effects, reversible)

Repeated oral administration to rat / No adverse systemic effects reported.

**Carcinogenicity**

Chronic oral administration to rat and mouse / affected organ(s): lung / 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****Assessment in Vitro:**

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

**Genotoxicity****Assessment in Vivo:**

No genetic changes were observed in laboratory tests using: rats

**Developmental toxicity**

Exposure during pregnancy. Oral (rat, rabbit, hamster, mouse) / No birth defects were observed.

**Other information**

Information given is based on data obtained from similar substances.

**Human experience****Inhalation:**

Respiratory system: No increase in tumor incidence was reported. No significant impairment of lung function. (based on reports of occupational exposure to workers)

**Data for Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis[(1,1-dimethylethyl) (78-63-7)****Acute toxicity****Oral:**

No deaths occurred. (rat) LD0 > 2,000 mg/kg.

**Dermal:**

May be harmful in contact with skin. (rabbit) LD50 = 4,100 mg/kg.

**Skin Irritation:**

Causes skin irritation. (rabbit) (4 h)

**Eye Irritation:**

Causes mild eye irritation. (rabbit)

**Skin Sensitization:**

Not a sensitizer. Guinea pig maximization test. No skin allergy was observed.

**LUPEROX® EZD-SP2**

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**Repeated dose toxicity**

Subchronic oral administration to rat / No adverse systemic effects reported.

Repeated oral administration to rat / affected organ(s): liver, kidney / signs: changes in organ weights, changes in organ structure or function, hyaline droplet nephropathy

**Genotoxicity****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 a laboratory test using: mice

**Developmental toxicity**

Exposure during pregnancy. oral (rat) / No birth defects were observed.

**Data for Anti-oxidizing agent (Proprietary)****Acute toxicity****Oral:**

Harmful if swallowed. (rat) LD50 = 1,053 mg/kg.

**Dermal:**

No deaths occurred. (rat) LD0 > 2,000 mg/kg.

**Skin Irritation:**

Practically non-irritating. (rabbit)

**Eye Irritation:**

Causes serious eye damage. (rabbit)

**Skin Sensitization:**

Not a sensitizer. Buehler method. (Guinea pig) No skin allergy was observed.

**Repeated dose toxicity**

Repeated oral administration to rat / affected organ(s): blood, spleen, liver, kidney / signs: changes in organ structure or function

**Genotoxicity****Assessment in Vitro:**

No genetic changes were observed in a laboratory test using: animal cells

Genetic changes were observed in a laboratory test using: bacteria

**Genotoxicity****Assessment in Vivo:**

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**LUPEROX® EZD-SP2**

No genetic changes were observed in a laboratory test using: mice, rats

**Developmental toxicity**

Exposure during pregnancy. oral (rat) / No birth defects were observed.

**Data for 1,2-Dioxane, 3,3,6,6-tetramethyl- (22431-89-6)**

**Acute toxicity**

**Specific target organ toxicity - single exposure:**

May cause respiratory irritation.

**Skin Irritation:**

Causes skin irritation. (estimate based on composition)

**Eye Irritation:**

Causes serious eye irritation. (estimate based on composition)

**Other information**

The information presented is from representative materials in this chemical class. The results may vary depending on the test substance.

|                                   |
|-----------------------------------|
| <b>12. ECOLOGICAL INFORMATION</b> |
|-----------------------------------|

**Chemical Fate and Pathway**

Data on this material and/or its components are summarized below.

**Data for Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis[(1,1-dimethylethyl) (78-63-7)**

**Stability in water:**

Half-life 2.7 h (@pH 4)

Half-life 2.7 h (@pH 7)

Half-life 2.8 h (@pH 9)

**Biodegradation:**

Not readily biodegradable. (60 d) biodegradation 0 %

**Bioaccumulation:**

512 - 539 (Fish)

**Octanol Water Partition Coefficient:**

log Pow: = 7.34

**Data for Anti-oxidizing agent (Proprietary)**

**Biodegradation:**

Not readily biodegradable. (28 d) biodegradation 9 %

**Octanol Water Partition Coefficient:**

log Pow: = 0.56(Method: calculated)

**LUPEROX® EZD-SP2**

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**Data for Pentene, 2,4,4-trimethyl- (25167-70-8)****Biodegradation:**

Not readily biodegradable. (28 d) biodegradation 1.6 %

**Octanol Water Partition Coefficient:**

log Pow: = 4.9

**Ecotoxicology**

Data on this material and/or its components are summarized below.

**Data for Silica gel, pptd., cryst.-free (112926-00-8)****Aquatic toxicity data:**

No effect up to the limit of solubility. Brachydanio rerio (zebrafish) 96 h LC0 > 10,000 mg/l (nominal concentrations reported)

**Aquatic invertebrates:**

No effect up to the limit of solubility. Daphnia (water flea) 24 h LC0 > 10,000 mg/l (nominal concentrations reported)

**Chronic toxicity to aquatic plants:**

No effect up to the limit of solubility. Desmodesmus subspicatus (green algae) 72 h NOEC > 10000 mg/l (Nominal concentration)

**Data for Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis[(1,1-dimethylethyl) (78-63-7)****Aquatic toxicity data:**

No effect up to the limit of solubility. Oryzias latipes (Orange-red killifish) 96 h

**Algae:**

No effect up to the limit of solubility. Pseudokirchneriella subcapitata 72 h

**Microorganisms:**

No effect up to the limit of solubility. Activated sludge 3 h NOEC (Respiration inhibition) > 1,000 mg/l (nominal concentrations reported)

**Chronic toxicity to aquatic invertebrates:**

No effect up to the limit of solubility. Daphnia magna (Water flea) 21 d NOEC > 0.0065 mg/l

**Chronic toxicity to aquatic plants:**

No effect up to the limit of solubility. Pseudokirchneriella subcapitata 72 h NOEC > 0.236 mg/l

**Data for Anti-oxidizing agent (Proprietary)****Aquatic toxicity data:**

Practically nontoxic. Danio rerio (zebra fish) 96 h LC50 = 545 mg/l

**Aquatic invertebrates:**

Harmful. Daphnia magna (Water flea) 48 h EC50 = 54 mg/l

**Algae:**

Practically nontoxic. Desmodesmus subspicatus (green algae) 72 h ErC50 = 1,038 mg/l

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**LUPEROX® EZD-SP2**

**Microorganisms:**

Pseudomonas putida 16 h EC50 = 890 mg/l

**Chronic toxicity to aquatic invertebrates:**

Practically nontoxic. Daphnia (water flea) 21 d NOEC = 1.5 mg/l

**Chronic toxicity to aquatic plants:**

Practically nontoxic. Desmodesmus subspicatus (green algae) 72 h NOEC = 22 mg/l

**Data for Pentene, 2,4,4-trimethyl- (25167-70-8)**

**Aquatic toxicity data:**

Very toxic. Oncorhynchus mykiss (rainbow trout) 96 h LC50 = 0.58 mg/l

**Aquatic invertebrates:**

Toxic. Daphnia magna (Water flea) 48 h EC50 = 1.2 mg/l

**Algae:**

Toxic. Pseudokirchneriella subcapitata (green algae) 72 h ErC50 = 1.5 mg/l

**Microorganisms:**

Pseudomonas fluorescens 24 h EC0 > 1,000 mg/l

**Chronic toxicity to aquatic invertebrates:**

Toxic. Daphnia magna (Water flea) 21 d NOEC (Reproduction inhibition) = 0.16 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.

**14. TRANSPORT INFORMATION**

**US Department of Transportation (DOT)**

UN Number : 3108  
 Proper shipping name : Organic peroxide type E, solid  
 Technical name : (2,5-Dimethyl-2,5-di(tert-butylperoxy) hexane, <=77%)  
 Class : 5.2  
 Marine pollutant : no

**International Maritime Dangerous Goods Code (IMDG)**

UN Number : 3108  
 Proper shipping name : ORGANIC PEROXIDE TYPE E, SOLID  
 Technical name : (2,5-DIMETHYL-2,5-DI(TERT-BUTYLPEROXY) HEXANE, <=77%)  
 Class : 5.2

**LUPEROX® EZD-SP2**

Marine pollutant : no

**15. REGULATORY INFORMATION**

**Chemical Inventory Status**

|  |            |   |
|--|------------|---|
| US. Toxic Substances Control Act                                   | 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        |
| China. Inventory of Existing Chemical Substances in China (IECSC)  | IECSC (CN) | Conforms to   |
| Japan. ENCS - Existing and New Chemical Substances Inventory       | ENCS (JP)  | Does not conform  |
| Japan. ISHL - Inventory of Chemical Substances                     | ISHL (JP)  | Does not conform  |
| 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:**

Acute Health Hazard, Reactivity Hazard

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

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.

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

| <u>Chemical name</u>             | <u>CAS-No.</u> | <u>Reportable quantity</u> |
|----------------------------------|----------------|----------------------------|
| Peroxide, bis(1,1-dimethylethyl) | 110-05-4       | 100 lbs                    |
| 2-Propanol, 2-methyl-            | 75-65-0        | 100 lbs                    |



**LUPEROX® EZD-SP2**

**United States – State Regulations**

**New Jersey Right to Know**

| <u>Chemical name</u>           | <u>CAS-No.</u> |
|--------------------------------|----------------|
| Silica gel, pptd., cryst.-free | 112926-00-8    |

**Pennsylvania Right to Know**

| <u>Chemical name</u>           | <u>CAS-No.</u> |
|--------------------------------|----------------|
| Silica gel, pptd., cryst.-free | 112926-00-8    |

|   |         |
|---|---------|
| Peroxide, (1,1,4,4-tetramethyl-1,4-butanediyl)bis[(1,1-dimethylethyl) | 78-63-7 |
|---|---------|

|                      |             |
|----------------------|-------------|
| Anti-oxidizing agent | Proprietary |
|----------------------|-------------|

|                       |         |
|-----------------------|---------|
| 2-Propanol, 2-methyl- | 75-65-0 |
|-----------------------|---------|

**Pennsylvania Right to Know – Environmentally Hazardous Substance(s)**

| <u>Chemical name</u>  | <u>CAS-No.</u> |
|-----------------------|----------------|
| 2-Propanol, 2-methyl- | 75-65-0        |

**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.

|                              |
|------------------------------|
| <b>16. OTHER INFORMATION</b> |
|------------------------------|

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

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H227 Combustible liquid.
- H242 Heating may cause a fire.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.
- H402 Harmful to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

Miscellaneous:

**LUPEROX® EZD-SP2**

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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.

## Latest Revision(s):

Reference number: 200013973  
Date of Revision: 11/25/2019  
Date Printed: 11/26/2019

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