

# SAFETY DATA SHEET

## Section 1. Identification

**Product identifier** : DISFLAMOLL TP LXS 51092  
**Material Number** : 57124708  
**Chemical family** : Organophosphate  
**Identified uses** : Plasticizer.  
**Supplier/Manufacturer** : LANXESS Corporation  
Product Safety & Regulatory Affairs  
111 RIDC Park West Drive  
Pittsburgh, PA 15275-1112  
USA

For information: US/Canada (800) LANXESS  
International +1 412 809 1000

**In case of emergency** : Chemtrec (800) 424-9300  
International (703) 527-3887  
Lanxess Emergency Phone (800) 410-3063.

## Section 2. Hazards identification

**HAZCOM Standard Status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), the SDS contains valuable information critical to the safe handling and proper use of the product. The SDS should be retained and available for employees and other users of this product.

**Physical state** : Liquid.

**Classification of the substance or mixture** : Not classified.

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 59%

**Signal word** : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

**Hazard Not Otherwise Classified (HNOC)** : None known.

**Precautionary statements**

**Prevention** : Not applicable.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : Not applicable.

**Supplemental label elements** : Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture  
**CAS number** : -

Ingredient name	%	CAS number
Triphenyl Phosphate	42 - 48%	115-86-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

## Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### Potential chronic health effects

No known significant effects or critical hazards.

- Notes to physician** : Treat symptomatically. No specific treatment.
- Protection of first-aiders** : No special measures required.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
phosphorus oxides

## Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : 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** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 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. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods and materials for containment and cleaning up** : Stop leak if without risk. Move containers from spill area. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. Prevent entry into sewers, water courses, basements or confined areas.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : 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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
- Conditions for safe storage** : Do not store above the following temperature: 40°C (104°F). 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 tightly closed and 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 containment to avoid environmental contamination. Empty containers or liners may retain some product residues.

## Section 8. Exposure controls/personal protection

### Occupational exposure limits

Ingredient name	Exposure limits
Triphenyl Phosphate	<b>ACGIH TLV (United States, 6/2013).</b> TWA: 3 mg/m <sup>3</sup> 8 hours. <b>OSHA PEL (United States, 2/2013).</b> TWA: 3 mg/m <sup>3</sup> 8 hours.

Reductions in plasma and red blood cell cholinesterase activity have been reported in animals and humans following exposure to TPP, however no resulting neurotoxicity was produced.

### Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

## Section 8. Exposure controls/personal protection

### Personal protection

- 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.
- Respiratory protection** : The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline. NIOSH approved, air-purifying respirator with organic vapor cartridges and N-95 filters. When respirators are in use, an OSHA compliant respirator program is required (29 CFR 1910.134). Airborne concentrations must not exceed the respirator's Assigned Protection Factor multiplied by the appropriate standard/guideline.
- Skin protection** : Rubber gloves. Wear cloth work clothing including long pants and long-sleeved shirts. Suitable protective footwear.
- Eye/face protection** : safety glasses with side-shields
- Medical Surveillance** : Not available.

## Section 9. Physical and chemical properties

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Boiling point** : Not available.
- Melting point** : Not available.
- Flash point** : Open cup: 272°C (521.6°F)
- Evaporation rate** : Not available.
- Explosion limits** : Not available.
- Vapor pressure** : Not available.
- Density** : 1.18 g/cm<sup>3</sup>
- Specific gravity (Relative density)** : Not available.
- Solubility** : Insoluble in the following materials: cold water
- Partition coefficient: n-octanol/water** : Not available.
- Vapor density** : Not available.
- Viscosity** : Dynamic: 70 mPa·s
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : strong acids and strong bases
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Potential chronic health effects

#### Short term exposure

**Potential immediate effects** : Not available.

#### Long term exposure

**Potential delayed effects** : Not available.  
**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Test
Triphenyl Phosphate	LD50 Oral	Rat	>20000 mg/kg	-	OECD 401 Acute Oral Toxicity
Triphenyl Phosphate	LD50 Dermal	Rabbit	>10000 mg/kg	-	402 Acute Dermal Toxicity

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Triphenyl Phosphate	Skin - Erythema/Eschar	Rabbit	0	72 hours	14 days
	Skin - Edema	Rabbit	0	72 hours	14 days
	Eyes - Cornea opacity	Rabbit	0	72 hours	14 days
	Eyes - Iris lesion	Rabbit	0	72 hours	14 days
	Eyes - Redness of the conjunctivae	Rabbit	0.1	72 hours	14 days

#### Conclusion/Summary

**Skin** : Triphenyl Phosphate:Non-irritating

**Eyes** : Triphenyl Phosphate:Non-irritating

#### Sensitization

## Section 11. Toxicological information

Product/ingredient name	Route of exposure	Species	Result
Triphenyl Phosphate	skin	Guinea pig	Not sensitizing

### Chronic toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Triphenyl Phosphate	Sub-acute NOAEL Oral Sub-acute NOAEL Oral	Rat - Male Rat - Female	250 mg/kg 4000 mg/kg	28 days 28 days

### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Triphenyl Phosphate	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 482 Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells <i>in vitro</i>	Experiment: In vitro Subject: Mammalian-Animal Cell: Germ	Negative
	Chromosomal aberration assay	Experiment: In vitro Subject: Mammalian-Animal Cell: Germ Metabolic activation: +/-	Negative

### Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Triphenyl Phosphate	Negative - Intraperitoneal -	Mouse - Male	-	-

Product/ingredient name	CAS #	IARC	NTP	OSHA
Triphenyl Phosphate	115-86-6	Not classified.	Not classified.	Not classified.

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Species	Dose	Exposure
Triphenyl Phosphate		Rat - Male, Female	Oral: 690 mg/kg	91 days; 7 days per week
		Rat	Oral: 690 mg/kg	91 days; 7 days per week

### Acute toxicity estimates

Route	ATE value (Acute Toxicity Estimates)
Not available.	

**Other information** : Human evidence: No neurotoxic effects.

## Section 12. Ecological information

### Toxicity

## Section 12. Ecological information

Product/ingredient name	Test	Result	Species	Exposure
Triphenyl Phosphate	EPA 660/3-75-009	Acute EC50 1 mg/l	Daphnia - Daphnia magna	48 hours
	EPA 660/3-75-009	Acute EC50 0.18 to 0.32 mg/l	Daphnia - Mysidopsis bahia	96 hours
	EPA 660/3-75-009	Acute LC50 0.4 mg/l	Fish - Oncorhynchus mykiss	96 hours
	EPA-660/3-75-009	Chronic EC10 0.037 mg/l Fresh water	Fish - Oncorhynchus mykiss	30 days
	OECD 201 Alga, Growth Inhibition Test	Chronic LOEC 0.5 to 5 mg/l	Algae - Selenastrum capricornutum	72 hours
	OECD 211 <i>Daphnia Magna</i> Reproduction Test	Chronic LOEC 0.931 mg/l	Daphnia - Daphnia magna	21 days
	EPA-660/3-75-009	Chronic LOEC 0.055 mg/l Fresh water	Fish - Oncorhynchus mykiss	30 days
	OECD 201 Alga, Growth Inhibition Test	Chronic NOEC 0.25 to 2.5 mg/l	Algae - Scenedesmus subspicatus	72 hours
OECD 211 <i>Daphnia Magna</i> Reproduction Test	Chronic NOEC 0.254 mg/l	Daphnia - Daphnia magna	21 days	

**Conclusion/Summary** : Not available.

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Triphenyl Phosphate	OECD 303A Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units	93.8 % - 20 days	-	-
	OECD 301C Ready Biodegradability - Modified MITI Test (I)	83 to 94 % - Readily - 28 days	-	-

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Triphenyl Phosphate	Fresh water 19 days	50%; 0.5 day(s)	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Triphenyl Phosphate	4.63	190	low

### Mobility in soil

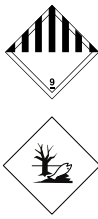
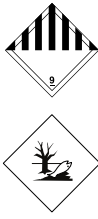
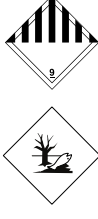
**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

- Disposal methods** : 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 or liners may retain some product residues. 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 laws.
- RCRA classification** : : 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)

## Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIPHENYL PHOSPHATE)	9	III		8, 146, 335, IB3, T4, TP1, TP29 Only bulk packages (greater than 119 Gallons) are regulated as marine pollutants when shipped by highway or rail.
<b>IMDG Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIPHENYLPHOSPHATE)	9	III		<b>Emergency schedules (EmS)</b> F-A, S-F
<b>IATA-DGR Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIPHENYLPHOSPHATE)	9	III		<b>Passenger aircraft</b> 964: 450 L  <b>Cargo aircraft</b> 964: 450 L

PG\* : Packing group

**RQ** : 0 lbs

## Section 15. Regulatory information

**SARA 311/312** : Not applicable.

**SARA Title III Section 302 Extremely Hazardous Substances** : None

**SARA Title III Section 313 Toxic Chemicals** : None

**US EPA CERCLA Hazardous Substances (40 CFR 302)** : None

[State regulations](#)



## Section 15. Regulatory information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

<u>Ingredient name</u>	<u>CAS number</u>	<u>State Code</u>	<u>Concentration (%)</u>
Triphenyl Phosphate	115-86-6	MA - S, NJ - HS, PA - RTK HS	42 - 48%
Proprietary Phosphate	Trade secret.		47 - 53%
Proprietary Phosphate	Trade secret.		17 - 23%
Proprietary Phosphate	Trade secret.		3 - 5%

Massachusetts Substances: MA - S  
 Massachusetts Extraordinary Hazardous Substances: MA - Extra HS  
 New Jersey Hazardous Substances: NJ - HS  
 Pennsylvania RTK Hazardous Substances: PA - RTK HS  
 Pennsylvania Special Hazardous Substances: PA - Special HS

### California Prop. 65

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

**U.S. Toxic Substances Control Act** : Listed on the TSCA Inventory.

## Section 16. Other information

### Hazardous Material Information System

Health	1
Flammability	1
Physical hazards	0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme  
 \*=Chronic

The customer is responsible for determining the PPE code for this material. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

### National Fire Protection Association (U.S.A.)



0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

LANXESS' method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS as a customer service.

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**Date of issue** : 09-09-2014  
**Date of previous issue** : 06-25-2014  
**Version** : 3  
 Product Safety and Regulatory Affairs

## Section 16. Other information

Indicates information that has changed from previously issued version.

### Notice to reader

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of LANXESS Corporation. The information in this SDS relates only to the specific material designated herein. LANXESS Corporation assumes no legal responsibility for use of or reliance upon the information in this SDS.