

# SAFETY DATA SHEET

GHS  
United States

## Section 1. Product and company identification

<b>Product name</b>	<b>VANLUBE® 719</b>	<b><u>In case of emergency</u></b>
<b>Code</b>	52739	1-203-853-1400
<b>Supplier/Manufacturer</b>	Vanderbilt Chemicals, LLC 30 Winfield Street Norwalk, CT 06855	Chemtrec: 1-800-424-9300 Outside US: +1-703-527-3887
<b>Synonym</b>	Blend of organic antioxidants, corrosion inhibitors and antiwear agents.	
<b>Material uses</b>	Lubricant additives	
<b>Product type</b>	Liquid.	

## Section 2. Hazards identification

<b>OSHA/HCS status</b>	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Classification of the substance or mixture</b>	FLAMMABLE LIQUIDS - Category 4 GERM CELL MUTAGENICITY - Category 1B CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION (Fertility) - Category 2 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 69%

### GHS label elements

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

Combustible liquid.  
May cause genetic defects.  
Suspected of damaging fertility.  
Suspected of causing cancer.

### Precautionary statements

#### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection: Recommended: splash goggles. Keep away from flames and hot surfaces. - No smoking.

#### Response

IF exposed or concerned: Get medical attention.

#### Storage

Store locked up. Store in a well-ventilated place. Keep cool.

#### Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

#### Hazards not otherwise classified

None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** Mixture

Ingredient name	CAS number	% by weight
aromatic amine phosphate compound (NJTSR No. 800983-5013P)	-	<80
petroleum process oil, <3.0% DMSO extractable material	64742-52-5	20
trimethyl phosphate	512-56-1	0.2 - 0.5
diphenylamine	122-39-4	<0.2

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

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<b>Skin contact</b>	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Inhalation</b>	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	No specific data.
<b>Inhalation</b>	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

## Section 4. First aid measures

<b>Skin contact</b>	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
<b>Ingestion</b>	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<b>Specific treatments</b>	No specific treatment.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
<b>Unsuitable extinguishing media</b>	Do not use water jet.

**Specific hazards arising from the chemical** Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

<b>Hazardous thermal decomposition products</b>	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides metal oxide/oxides
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**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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**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

#### For non-emergency personnel

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

#### For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 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

#### Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

#### Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
petroleum process oil, <3.0% DMSO extractable material	<p><b>ACGIH TLV (United States, 3/2012).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction</p> <p><b>NIOSH REL (United States, 1/2013).</b> TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Mist STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Mist</p> <p><b>ACGIH TLV (United States).</b> STEL: 10 mg/m<sup>3</sup></p> <p><b>OSHA PEL (United States, 6/2010).</b> TWA: 5 mg/m<sup>3</sup> 8 hours.</p>
diphenylamine	<p><b>ACGIH TLV (United States, 3/2012).</b> TWA: 10 mg/m<sup>3</sup> 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 10 ppm 8 hours.</p> <p><b>NIOSH REL (United States, 1/2013).</b> TWA: 10 mg/m<sup>3</sup> 10 hours.</p>

### Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### 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.

#### Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: splash goggles

#### Skin protection

## Section 8. Exposure controls/personal protection

### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

### Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

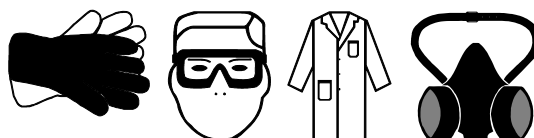
### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Vapor and dust respirator.

### Personal protective equipment (Pictograms)



## Section 9. Physical and chemical properties

### Appearance

Physical state	Liquid.
Color	Amber. [Dark]
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Closed cup: 85°C (185°F) [Pensky-Martens.]
Burning time	Not applicable.
Burning rate	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	0.99 g/cm <sup>3</sup> [15.6°C (60.1°F)]
Relative density	0.99
Solubility	Insoluble in the following materials: cold water.
Solubility in water	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.

## Section 9. Physical and chemical properties

<b>SADT</b>	Not available.
<b>Viscosity</b>	Not available.

## Section 10. Stability and reactivity

<b>Reactivity</b>	No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	The product is stable.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
<b>Incompatible materials</b>	Reactive or incompatible with the following materials: oxidizing materials
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
trimethyl phosphate	LD50 Dermal	Rat	3400 to 3440 mg/kg	-
diphenylamine	LD50 Oral	Rat	840 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
aromatic amine phosphate compound (NJTSR No. 800983-5013P)	LD50 Oral	Rat	1165 mg/kg	-
	LD50 Dermal	Rabbit	3.59 ml/kg	-
	LD50 Oral	Rat	3.69 ml/kg	-

**Conclusion/Summary** Inhalation of vapor at a concentration of 1.7 mg/l resulted in no mortalities among a group of 10 male albino rats following exposure.

#### Irritation/Corrosion

Not available.

#### Sensitization

Not available.

#### Mutagenicity

Product/ingredient name	Test	Experiment	Result
trimethyl phosphate	-	Subject: Mammalian-Animal	Positive

## Section 11. Toxicological information

**Conclusion/Summary** The product was mutagenic in two strains: TA 98 with metabolic activation at 2000, 3000 and 5000 ug/plate and in TA 1538 with metabolic activation at 1000, 2000, 3000 and 5000 ug/plate.

### Carcinogenicity

Not available.

**Conclusion/Summary** Trimethyl phosphate shows limited evidence of a carcinogenic effect. Carcinogenicity results were both positive and negative in a two year gavage study with rats and mice using trimethyl phosphate. In a 30 month drinking water study using trimethyl phosphate, results were negative when tested on rats.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

**Conclusion/Summary** In various teratogenicity tests using trimethyl phosphate, rats, mice and rabbits tested positive for spermatogenesis.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
trimethyl phosphate diphenylamine	Category 2 Category 2	Not determined Oral	nervous system kidneys, liver and spleen

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Inhalation.

### 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** Adverse symptoms may include the following:  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations



## Section 11. Toxicological information

<b>Skin contact</b>	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
<b>Ingestion</b>	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

<b>Potential immediate effects</b>	Not available.
<b>Potential delayed effects</b>	Not available.

#### Long term exposure

<b>Potential immediate effects</b>	Not available.
<b>Potential delayed effects</b>	Not available.

#### Potential chronic health effects

Not available.

<b>Conclusion/Summary</b>	Diphenylamines: Overexposure to vapors from heating the product may cause eye and/or skin irritation, and respiratory tract irritation with symptoms such as, but not limited to, dizziness and flu-like symptoms.
<b>General</b>	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
<b>Mutagenicity</b>	May cause genetic defects.
<b>Teratogenicity</b>	No known significant effects or critical hazards.
<b>Developmental effects</b>	No known significant effects or critical hazards.
<b>Fertility effects</b>	Suspected of damaging fertility.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Dermal	7829.9 mg/kg

**Other information** Not available.

## Section 12. Ecological information

### Toxicity

## Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
trimethyl phosphate diphenylamine	Acute LC50 7010 mg/l Fresh water Acute EC50 2.17 mg/l Fresh water	Fish - Pimephales promelas Algae - Pseudokirchneriella subcapitata - Exponential growth phase	96 hours 72 hours
	Acute EC50 1.2 mg/l Fresh water	Daphnia - Daphnia magna - New born	48 hours
	Chronic NOEC 0.37 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
aromatic amine phosphate compound (NJTSR No. 800983-5013P)	EC50 0.64 mg/l	Algae	72 hours

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
aromatic amine phosphate compound (NJTSR No. 800983-5013P)	-	0 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
aromatic amine phosphate compound (NJTSR No. 800983-5013P)	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
trimethyl phosphate	-0.65	1.41	low
diphenylamine	3.5	151.36	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

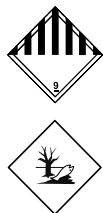
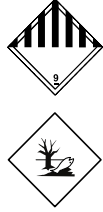
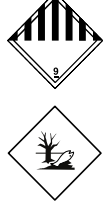
### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	Not regulated.	-	-	-		<b>Remarks</b> This material is DOT regulated (NA1993, combustible liquid, n.o.s. (aromatic amine phosphate), PGIII) if transported in a bulk container (> 119 gallons).
<b>TDG Classification</b>	Not regulated.	-	-	-		-
<b>ADR/RID Class</b>	3082	Environmentally hazardous substance, liquid, n.o.s. (aromatic amine phosphate)	9	III		<b>Remarks</b> Marine pollutant
<b>IMDG Class</b>	3082	Environmentally hazardous substance, liquid, n.o.s. (aromatic amine phosphate)	9	III		<b>Remarks</b> Marine pollutant
<b>IATA-DGR Class</b>	3082	Environmentally hazardous substance, liquid, n.o.s. (aromatic amine phosphate)	9	III		<b>Remarks</b> Marine pollutant

PG\* : Packing group

## Section 15. Regulatory information

### [United States inventory \(TSCA 8b\)](#)

All components are listed or exempted.

### [U.S. Federal regulations](#)

TSCA 8(a) PAIR: diphenylamine

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

TSCA 8(c) calls for record of SAR: trimethyl phosphate

## Section 15. Regulatory information

### SARA 302/304

#### Composition/information on ingredients

No products were found.

### **SARA 304 RQ**

Not applicable.

### SARA 311/312

#### **Classification**

FLAMMABLE LIQUIDS - Category 4  
GERM CELL MUTAGENICITY - Category 1  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION (Fertility) - Category 2

#### Composition/information on ingredients

Name	%	Classification
aromatic amine phosphate compound (NJTSR No. 800983-5013P)	<80	GERM CELL MUTAGENICITY - Category 2
trimethyl phosphate	0.2 - 0.5	ACUTE TOXICITY (oral) - Category 4 GERM CELL MUTAGENICITY - Category 1B CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION (Fertility) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system) - Category 2

### State regulations

#### **Massachusetts**

None of the components are listed.

#### **New York**

None of the components are listed.


#### **New Jersey**

None of the components are listed.

#### **Pennsylvania**

None of the components are listed.

#### **California Prop. 65**

 **WARNING:** This product can expose you to Trimethyl phosphate, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Ingredient name	No significant risk level	Maximum acceptable dosage level
Trimethyl phosphate	Yes.	-

### International regulations

#### **Australia inventory (AICS)**

All components are listed or exempted.

#### **Canada inventory**

At least one component is not listed in DSL but all such components are listed in NDSL.

#### **China inventory (IECSC)**

All components are listed or exempted.

#### **Europe inventory**

All components are listed or exempted.

#### **Japan inventory (ENCS)**

Not determined.

#### **Korea inventory (KECI)**

Not determined.

#### **New Zealand Inventory of Chemicals (NZIoC)**

All components are listed or exempted.

#### **Philippines inventory (PICCS)**

Not determined.

## Section 15. Regulatory information

### Taiwan Chemical Substances Inventory (TCSI)

All components are listed or exempted.

## Section 16. Other information

<u>Hazardous Material Identification System (U.S.A.)</u>	
Health	2
Flammability	2
Physical hazards	0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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



### History

Date of printing	11/29/2017
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Date of previous issue	9/30/2014
Version	3

### Key to abbreviations

ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

### References

Not available.

### Information contact

**Vanderbilt Global Services, LLC**  
**Corporate Risk Management**  
**1-203-295-2143**

Visit [www.vanderbiltchemicals.com](http://www.vanderbiltchemicals.com) for more information.

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