

# SAFETY DATA SHEET

GHS  
United States  
English (US)

## Section 1. Identification

<b>Product identifier</b>	<b>VANLUBE® 692</b>
<b>Product code</b>	52506
<b>Chemical identity</b>	Phosphate oil blend
<b>Other means of identification</b>	dodecylaniline salt of butyl acid phosphate, dodecylaniline salt of methyl acid phosphate oil blend
<b>Product type</b>	Liquid.
<b>Material uses</b>	Lubricant Additive
<b>Supplier/Manufacturer</b>	Vanderbilt Chemicals, LLC 30 Winfield Street Norwalk, CT 06855  1-203-853-1400
<b>Emergency telephone number</b>	Chemtrec: 1-800-424-9300 Outside US: +1-703-527-3887

## Section 2. Hazard(s) 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 SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1B GERM CELL MUTAGENICITY - Category 1B CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 2  Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 70 - 90% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 100%

### GHS label elements

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

Combustible liquid.  
Causes skin irritation.  
May cause an allergic skin reaction.  
May cause genetic defects.  
Suspected of causing cancer.  
Suspected of damaging fertility or the unborn child.

### Precautionary statements

## Section 2. Hazard(s) identification

<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear protective clothing: Recommended: lab coat. Wear eye or face protection: Recommended: splash goggles. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
<b>Response</b>	IF exposed or concerned: Get medical advice or attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazards not otherwise classified</b>	None known.

## Section 3. Composition and ingredient information

<b>Substance/mixture</b>	Mixture
<b>Chemical identity</b>	Phosphate oil blend
<b>Other means of identification</b>	dodecylaniline salt of butyl acid phosphate, dodecylaniline salt of methyl acid phosphate oil blend

Ingredient name	CAS number	% by weight
Methyl phosphate compds. with branched dodecylbenzenamine	1412893-77-6	35 - 45
Butyl phosphate compds. with branched dodecylbenzenamine	1412893-78-7	35 - 45
petroleum process oil, <3.0% DMSO extractable material	64742-52-5	18
trimethyl phosphate	512-56-1	0.2 - 0.6

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

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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.
<b>Skin contact</b>	Wash with plenty of soap and 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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## Section 4. First aid measures

### Ingestion

Wash out mouth with water. Remove dentures if any. 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

##### Eye contact

No known significant effects or critical hazards.

##### Inhalation

No known significant effects or critical hazards.

##### Skin contact

Causes skin irritation. May cause an allergic skin reaction.

##### Ingestion

No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

##### Eye contact

Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

##### Inhalation

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

##### Skin contact

Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

##### Ingestion

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

#### Notes to physician

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

#### Specific treatments

No specific treatment.

#### Protection of first-aiders

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

**Suitable extinguishing media** Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** Do not use water jet.

### Specific hazards arising from the chemical

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

### Hazardous thermal decomposition products

Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides

### 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. Absorb with an inert 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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.

#### 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. See Section 10 for incompatible materials before handling or use. When stored at low temperatures, some crystallization or gelling may occur. The product may be re-liquified by agitation and heating at 40 to 50°C.

## Section 8. Exposure controls and personal protection

### Control parameters

#### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine	None.
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine	None.
petroleum process oil, <3.0% DMSO extractable material	<b>OSHA PEL (United States)</b> TWA: 5 mg/m <sup>3</sup> . <b>ACGIH TLV (United States)</b> STEL: 10 mg/m <sup>3</sup> . <b>NIOSH REL (United States, 10/2020) [OIL MIST MINERAL]</b> TWA 10 hours: 5 mg/m <sup>3</sup> . Form: Mist. STEL 15 minutes: 10 mg/m <sup>3</sup> . Form: Mist.
trimethyl phosphate	None.

## Section 8. Exposure controls and personal protection

### 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. Contaminated work clothing should not be allowed out of the workplace. 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: chemical splash goggles. Recommended: splash goggles

### Skin 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

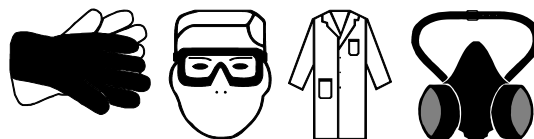
#### Other skin protection

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

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. 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: $\geq 65^{\circ}\text{C}$ ( $\geq 149^{\circ}\text{F}$ ) [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	$0.99\text{ g/cm}^3$ [ $15.6^{\circ}\text{C}$ ( $60.1^{\circ}\text{F}$ )]
Relative density	0.97
Solubility(ies)	

Media	Result
cold water	Not soluble

Solubility in water	Not available.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
SADT	Not available.
Viscosity	Dynamic (room temperature): Not available. Kinematic (room temperature): $12678\text{ mm}^2/\text{s}$ ( $12678\text{ cSt}$ ) [at $25^{\circ}\text{C}$ ] Kinematic ( $40^{\circ}\text{C}$ ( $104^{\circ}\text{F}$ )): 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	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.

## Section 10. Stability and reactivity

### Incompatible materials

Reactive or incompatible with the following materials:  
oxidizing materials

### Hazardous decomposition products

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
Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine	LD50 Oral	Rat	>2000 mg/kg	-
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine	LD50 Oral	Rat	>2000 mg/kg	-
petroleum process oil, <3.0% DMSO extractable material	LC50 Inhalation Dusts and mists	Rat	2.18 mg/l (Based on tests of similar materials)	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg (Based on tests of similar materials)	-
	LD50 Oral	Rat	>5000 mg/kg (Based on tests of similar materials)	-
trimethyl phosphate	LD50 Dermal	Rat	3400 to 3440 mg/kg	-
	LD50 Oral	Rat	840 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
petroleum process oil, <3.0% DMSO extractable material	Eyes - Not irritant (Based on tests of similar materials)	Rabbit	-	-	-
	Skin - Not irritant (Based on tests of similar materials)	Rabbit	-	-	-

#### Conclusion/Summary

##### Skin

Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine: Non-irritating to the skin. (Reconstructed Human Epidermis Test Method)  
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine: Causes skin irritation. (Reconstructed Human Epidermis Test Method)

##### Eyes

Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine: Non-irritating to the eyes. (Bovine Corneal Opacity and Permeability Test Method)  
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine: Non-irritating to the eyes. (Bovine Corneal Opacity and Permeability Test Method)

## Section 11. Toxicological information

### Sensitization

Product/ingredient name	Route of exposure	Species	Result
Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine	skin	Mouse	Sensitizing
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine	skin	Mouse	Sensitizing
petroleum process oil, <3.0% DMSO extractable material	skin	Guinea pig	Not sensitizing (Based on tests of similar materials)

### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
petroleum process oil, <3.0% DMSO extractable material	OECD 471	Experiment: In vitro Subject: Bacteria	Positive (Based on tests of similar materials)
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal	Negative (Based on tests of similar materials)
trimethyl phosphate	-	Subject: Mammalian-Animal	Positive

#### Conclusion/Summary

In a dominant lethal assay, heritable translocation assay and micronucleus assay using trimethyl phosphate, rodents tested positive for mutagenicity.

### 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.

## Section 11. Toxicological information

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
trimethyl phosphate	Category 2	Not determined	nervous system

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

#### Eye contact

No known significant effects or critical hazards.

#### Inhalation

No known significant effects or critical hazards.

#### Skin contact

Causes skin irritation. May cause an allergic skin reaction.

#### Ingestion

May be harmful if swallowed.

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

#### Eye contact

Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

#### Inhalation

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

#### Skin contact

Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

#### Ingestion

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

##### Potential immediate effects

Not available.

##### Potential delayed effects

Not available.

#### Long term exposure

##### Potential immediate effects

Not available.

##### Potential delayed effects

Not available.

#### Potential chronic health effects

## Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
petroleum process oil, <3.0% DMSO extractable material	Sub-chronic LOAEL Oral	Rat	125 mg/kg (Based on tests of similar materials)	-

<b>General</b>	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<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
Oral	3125 mg/kg

#### Other information

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
trimethyl phosphate petroleum process oil, <3.0% DMSO extractable material	Acute LC50 7010 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute EC50 >10000 mg/l (Based on tests of similar materials)	Daphnia	48 hours
	Acute LC50 >100 mg/l (Based on tests of similar materials)	Fish	96 hours
	Acute NOEL >100 mg/l (Based on tests of similar materials)	Algae	72 hours
	Acute NOEL >1000 mg/l (Based on tests of similar materials)	Daphnia	48 hours
Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine	Acute NOEL >100 mg/l (Based on tests of similar materials)	Fish	96 hours
	Acute EC50 1.1 mg/l	Algae	72 hours
	Acute EL50 >1 mg/l	Daphnia	48 hours
	Acute LL50 >100 mg/L No effect up to the limit of solubility.	Fish	96 hours
Phosphoric acid, methyl ester, compds. with branched	Acute NOEC 0.58 mg/l	Algae	72 hours
	Acute NOELR 1 mg/l	Daphnia	48 hours
	Acute NOEL 100 mg/L No effect up to the limit of solubility.	Fish	96 hours
	Acute EL50 3.6 mg/l	Algae	72 hours

## Section 12. Ecological information

dodecylbenzenamine	Acute EL50 0.71 mg/l Acute LL50 >100 mg/L No effect up to the limit of solubility. Acute NOELR <0.32 mg/l Acute NOELR 0.2 mg/l Acute NOEL 100 m/L No effect up to the limit of solubility.	Daphnia Fish  Algae Daphnia	48 hours 96 hours  72 hours 48 hours 96 hours
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### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine	OECD 301B	0 % - Not readily - 28 days	-	-
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine	OECD 301B	0 % - Not readily - 28 days	-	-
petroleum process oil, <3.0% DMSO extractable material	-	2 to 4 % - Not readily - 28 days (Based on tests of similar materials)	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine	-	-	Not readily
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine	-	-	Not readily
petroleum process oil, <3.0% DMSO extractable material	-	-	Not readily (Based on tests of similar materials)

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine	1.51	-	Low
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine	1.81	-	Low
trimethyl phosphate	-0.65	1.41	Low

### Mobility in soil

#### Soil/Water partition coefficient

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 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	Not regulated.	-	-	-		<b>Remarks</b> For bulk (> 119 gallons) packages, this material is regulated under U. S. Department of Transportation regulations for domestic shipments. Its proper shipping description is NA 1993, combustible liquid, n.o.s., PG III.
<b>TDG Classification</b>	Not regulated.	-	-	-		-
<b>ADR/RID Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dodecylaniline salt of butyl acid phosphate, dodecylaniline salt of methyl acid phosphate)	9	III	 	<b>Remarks</b> Marine pollutant
<b>IMDG Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dodecylaniline salt of butyl acid phosphate, dodecylaniline salt of methyl acid phosphate)	9	III	 	<b>Remarks</b> Marine pollutant

## Section 14. Transport information

<b>IATA-DGR Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dodecylaniline salt of butyl acid phosphate, dodecylaniline salt of methyl acid phosphate)	9	III	 	-
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PG\* : Packing group

## Section 15. Regulatory information

### U.S. Federal regulations

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

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

### TSCA 12(b) - Chemical export notification

Not applicable.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** Not listed

**Clean Air Act Section 602 Class I Substances** Not listed

**Clean Air Act Section 602 Class II Substances** Not listed

**DEA List I Chemicals (Precursor Chemicals)** Not listed

**DEA List II Chemicals (Essential Chemicals)** Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** Not applicable.

### SARA 311/312

#### Classification

FLAMMABLE LIQUIDS - Category 4  
 SKIN IRRITATION - Category 2  
 SKIN SENSITIZATION - Category 1B  
 GERM CELL MUTAGENICITY - Category 1B  
 CARCINOGENICITY - Category 2  
 TOXIC TO REPRODUCTION - Category 2

#### Composition/information on ingredients

## Section 15. Regulatory information

Name	%	Classification
Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine	35 - 45	SKIN SENSITIZATION - Category 1B
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine	35 - 45	SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1B
trimethyl phosphate	0.2 - 0.6	ACUTE TOXICITY (oral) - Category 4 GERM CELL MUTAGENICITY - Category 1B CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

### State regulations

#### Massachusetts

The following components are listed: OIL MIST, MINERAL

#### 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

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

### Inventory list

#### Australia

All components are listed or exempted.

#### Canada

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

#### China

All components are listed or exempted.

#### Japan

All components are listed or exempted.

#### New Zealand

All components are listed or exempted.

#### Philippines

Not determined.

#### Republic of Korea

All components are listed or exempted.

Phosphoric acid, butyl ester, compds. with branched dodecylbenzenamine (CAS 1412893-78-7) K-REACH Registration Number: 04-2007-00462.  
Phosphoric acid, methyl ester, compds. with branched dodecylbenzenamine (CAS 1412893-77-6) K-REACH Registration Number: 04-2007-00461.

#### Taiwan

All components are listed or exempted.

#### United States

All components are active or exempted.

## Section 16. Any other relevant information

### Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		2
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

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	4/6/2026
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Date of previous issue	4/24/2024
Version	9

### 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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