

# SAFETY DATA SHEET

GHS  
United States

## Section 1. Product and company identification

<b>Product name</b>	<b>VANLUBE® 672E</b>	<b><u>In case of emergency</u></b>
<b>Code</b>	52205	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>	Amine phosphate compounds	
<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 ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B

### GHS label elements

#### Hazard pictograms



<b>Signal word</b>	Danger
<b>Hazard statements</b>	Combustible liquid. Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction.

### Precautionary statements

<b>Prevention</b>	Wear protective gloves. Wear protective clothing: Recommended: chemical-resistant protective suit. Wear eye or face protection: Recommended: splash goggles. Keep away from flames and hot surfaces. No smoking. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
<b>Response</b>	Immediately call a POISON CENTER or doctor. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.

## Section 2. Hazards identification

**Hazards not otherwise classified** None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** Substance

Ingredient name	CAS number	% by weight
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	-	>99
trimethyl phosphate	512-56-1	<0.1

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>	Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
<b>Inhalation</b>	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. 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>	Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. 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>	Causes serious eye damage.
<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	Causes severe burns. May cause an allergic skin reaction.
<b>Ingestion</b>	Harmful if swallowed.

#### Over-exposure signs/symptoms

## Section 4. First aid measures

<b>Eye contact</b>	Adverse symptoms may include the following: pain watering redness
<b>Inhalation</b>	No specific data.
<b>Skin contact</b>	Adverse symptoms may include the following: pain or irritation redness blistering may occur
<b>Ingestion</b>	Adverse symptoms may include the following: stomach pains

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

<b>Notes to physician</b>	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<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. 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

No specific data.

### 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. Do not breathe 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

### 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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. 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: chemical-resistant protective suit

#### 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.

## Section 8. Exposure controls/personal protection

### 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.

### Personal protective equipment (Pictograms)



### Recommended Personal Protective Equipment (when used in metal working fluid formulations)

#### **Respiratory Protection Statement:**

When used in metal working fluid (MWF) formulations where liquid aerosol concentrations ("oil mist") may be generated and detected in accordance with NIOSH analytical method 5524, or any other application where liquid aerosol concentrations may be generated and detected in accordance with NIOSH Method 5026, one of the following types of respirators may be necessary:

- An oil proof (class P) air-purifying, half mask respirator capable to filtering 99.97% of particles 0.3 microns or larger and an organic vapor cartridge when aerosol ("oil mist") concentrations are 5.0 mg/m<sup>3</sup> (total particulate mass) or less;
- a supplied-air respirator operated in a continuous-flow mode when aerosol ("oil mist") concentrations are 12.5 mg/m<sup>3</sup> (total particulate mass) or less;
- a powered, air-purifying respirator with an oil proof (class P) high-efficiency particulate filter and an organic vapor cartridge when aerosol ("oil mist") concentrations are 12.5 mg/m<sup>3</sup> (total particulate mass) or less;
- an air-purifying, full-facepiece respirator with an oil proof (class P) filter capable to filtering 99.97% of particles 0.3 microns or larger and an organic vapor cartridge when aerosol ("oil mist") concentrations are 25.0 mg/m<sup>3</sup> (total particulate mass) or less; or
- a supplied-air respirator operated in a pressure-demand or other positive-pressure mode.

Appropriate respiratory equipment depends on conditions of work and use. Consult a safety professional for process-specific guidance. Safety procedures should be developed for each intended application.

#### **Dermal Protection Statement:**

##### Hand Protection

When used in metal working fluids, and / or when cleaning up spills, or if there is a risk of splashing, use neoprene, nitrile or butyl rubber gloves to avoid direct skin contact.

##### Breakthrough time:

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are considered. Most gloves provide protection for only a limited time before they must be discarded and replaced because they will break through after repeated use. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.

Recommendations on the selection of gloves are as follows:

##### Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained. If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

##### Short-term / splash protection:

Recommended breakthrough times as above.

It is recognized that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

## Section 8. Exposure controls/personal protection

### Glove Thickness:

For general applications, gloves with a thickness typically greater than 0.35 mm are recommended.

It should be emphasized that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times. Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be considered to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

### Skin and Body

When used in metal working fluids, neoprene, nitrile, or butyl rubber coated aprons and/or impervious neoprene, nitrile, or butyl rubber coated suits and boots should be used.

### Breakthrough time:

Breakthrough time data are generated by protective clothing manufacturers under laboratory test conditions and represent how long a garment can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are considered. Most protective clothing provides protection for only a limited time before it must be discarded and replaced because it will break down after repeated chemical exposures. Always consult with your protective clothing supplier for up-to-date technical information on breakthrough times for the recommended protective clothing type.

Recommendations on the selection of protective clothing are as follows:

### Continuous contact:

Protective clothing with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable clothing can be obtained. If suitable clothing is not available to offer that level of protection, clothing with shorter breakthrough times may be acceptable as long as appropriate clothing maintenance and replacement regimes are determined and adhered to.

### Short-term / splash protection:

Recommended breakthrough times as above.

It is recognized that for short-term, transient exposures, clothing with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

### Clothing Thickness:

For general applications, clothing with a thickness typically greater than 0.35 mm is recommended.

Clothing thickness is not necessarily a good predictor of clothing resistance to a specific chemical, as the permeation efficiency of the clothing will be dependent on the composition of the material. Selection should also be based on consideration of the task and knowledge of breakthrough times. Thickness may also vary depending on the manufacturer, type and model. The manufacturers' technical data should always be considered to ensure selection of the most appropriate clothing for the task.

Note: Depending on the activity being conducted, clothing of varying thickness may be required for specific tasks. For example:

- Thinner clothing (down to 0.1 mm or less) may be required where a high degree of mobility is needed. However, these types of clothing are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker clothing (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

## Section 8. Exposure controls/personal protection

Refer to the follow standards for further information:

- Respiratory protection: EN 529
- Gloves: EN 420, EN 374
- Eye protection: EN 166
- Filtering half-mask: EN 149
- Filtering half-mask with valve: EN 405
- Half-mask: EN 140 plus filter
- Full-face mask: EN 136 plus filter
- Particulate filters: EN 143
- Gas/combined filters: EN 14387

### Eye / Face Protection Statement:

When used in metal working fluids, and / or when cleaning up spills, or if there is a risk of splashing, use safety glasses with side shields or splash resistant goggles.

### General Information:

Specific work environments and material handling practices may vary. Safety procedures should be developed for each application. The correct choice of personal protective equipment (PPE) depends upon the chemicals being handled, and the conditions of work and use.

Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organization for standards.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

### Engineering Controls:

When used in metal working fluids, or any other application where liquid aerosol concentrations ("oil mist") may be generated, provide local exhaust ventilation or other engineering controls to keep the liquid aerosol concentrations ("oil mist") below applicable occupational exposure limits.

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Color</b>	Yellow. [Light]
<b>Odor</b>	None.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.



## Section 9. Physical and chemical properties

<b>Melting point</b>	<-60°C (<-76°F)
<b>Boiling point</b>	100°C (212°F)
<b>Flash point</b>	Closed cup: 101.9°C (215.4°F) [EU Test Method A.9] [Product does not sustain combustion.]
<b>Burning time</b>	Not applicable.
<b>Burning rate</b>	Not applicable.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Lower and upper explosive (flammable) limits</b>	Not available.
<b>Vapor pressure</b>	0.058 mPa [room temperature]
<b>Vapor density</b>	Not available.
<b>Density</b>	1.016 g/cm <sup>3</sup> [20°C (68°F)]
<b>Relative density</b>	1.016
<b>Solubility</b>	Very slightly soluble in the following materials: cold water.
<b>Solubility in water</b>	Not available.
<b>Partition coefficient: n-octanol/water</b>	Not available.
<b>Auto-ignition temperature</b>	325°C (617°F)
<b>Decomposition temperature</b>	Not available.
<b>SADT</b>	Not available.
<b>Viscosity</b>	Kinematic (room temperature): 6483.05 cm <sup>2</sup> /s (648305 cSt) [at 25°C]

## 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
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	LD50 Oral	Rat	300 mg/kg	-

#### Irritation/Corrosion

Not available.

#### Conclusion/Summary

##### **Skin**

proprietary amine phosphate compounds (NJTSR No. 800983-5011P): Causes severe skin burns.

##### **Eyes**

proprietary amine phosphate compounds (NJTSR No. 800983-5011P): Causes serious eye damage. (Bovine Corneal Opacity and Permeability Test Method)

#### Sensitization

Product/ingredient name	Route of exposure	Species	Result
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	skin	Mouse	Sensitizing

#### Mutagenicity

Product/ingredient name	Test	Experiment	Result
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 490	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 487	Experiment: In vitro Subject: Mammalian-Human	Negative

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	-	-	-	Rat	Oral: 75 mg/kg	28 days

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

## Section 11. Toxicological information

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal.

### Potential acute health effects

#### **Eye contact**

Causes serious eye damage.

#### **Inhalation**

No known significant effects or critical hazards.

#### **Skin contact**

Causes severe burns. May cause an allergic skin reaction.

#### **Ingestion**

Harmful if swallowed.

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

#### **Eye contact**

Adverse symptoms may include the following:  
pain  
watering  
redness

#### **Inhalation**

No specific data.

#### **Skin contact**

Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur

#### **Ingestion**

Adverse symptoms may include the following:  
stomach pains

### 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

Product/ingredient name	Result	Species	Dose	Exposure
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	Chronic NOAEL Oral	Rat	75 mg/kg	-

#### **General**

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

#### **Carcinogenicity**

No known significant effects or critical hazards.

#### **Mutagenicity**

No known significant effects or critical hazards.

#### **Teratogenicity**

No known significant effects or critical hazards.

## Section 11. Toxicological information

**Developmental effects** No known significant effects or critical hazards.

**Fertility effects** No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	500.45 mg/kg

### Other information

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	Acute EC50 1.9 mg/l	Algae	72 hours
	Acute EC50 6.8 mg/l	Daphnia	48 hours
	Acute EC50 48 mg/l	Micro-organism	3 hours
	Acute LC50 18 mg/l	Fish	96 hours
	Acute NOEC 0.1 mg/l	Algae	72 hours
	Acute NOEC 3.9 mg/l	Daphnia	48 hours
	Acute NOEC 12 mg/l	Fish	96 hours
	Acute NOEC 4 mg/l	Micro-organism	3 hours

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	OECD 301B	9 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	-	-	Not readily

### Bioaccumulative potential

Not available.

### Mobility in soil

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

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




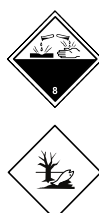
## Section 13. Disposal considerations

### 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.

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>	UN3265	Corrosive liquid, acidic, organic, n.o.s. (amine phosphate compound)	8	III		<b>Remarks</b> Marine pollutant
<b>TDG Classification</b>	UN3265	Corrosive liquid, acidic, organic, n.o.s. (amine phosphate compound)	8	III		<b>Remarks</b> Marine pollutant
<b>ADR/RID Class</b>	UN3265	Corrosive liquid, acidic, organic, n.o.s. (amine phosphate compound)	8	III		<b>Remarks</b> Marine pollutant
<b>IMDG Class</b>	UN3265	Corrosive liquid, acidic, organic, n.o.s. (amine phosphate compound)	8	III		<b>Remarks</b> Marine pollutant

## Section 14. Transport information

<b>IATA-DGR Class</b>	UN3265	Corrosive liquid, acidic, organic, n.o.s. (amine phosphate compound)	8	III	 	<b>Remarks</b> Marine pollutant
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PG\* : Packing group

## Section 15. Regulatory information

[United States Inventory \(TSCA 8b\)](#) All components are active or exempted.

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

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

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

### [SARA 302/304](#)

#### [Composition/information on ingredients](#)

No products were found.

### [SARA 304 RQ](#)

Not applicable.

### [SARA 311/312](#)

#### [Classification](#)

FLAMMABLE LIQUIDS - Category 4  
ACUTE TOXICITY (oral) - Category 4  
SKIN CORROSION - Category 1C  
SERIOUS EYE DAMAGE - Category 1  
SKIN SENSITIZATION - Category 1B

#### [Composition/information on ingredients](#)

Name	%	Classification
proprietary amine phosphate compounds (NJTSR No. 800983-5011P)	>99	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B

### [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 \(AIC\)](#)

All components are listed or exempted.

## Section 15. Regulatory information

<a href="#">Canada Inventory</a>	All components are listed or exempted.
<a href="#">China Inventory (IECSC)</a>	All components are listed or exempted.
<a href="#">Europe inventory</a>	All components are listed or exempted.
<a href="#">Japan Inventory (CSCL)</a>	All components are listed or exempted.
<a href="#">Korea inventory (KECI)</a>	All components within this product are registered for K-REACH.
<a href="#">New Zealand Inventory of Chemicals (NZIoC)</a>	All components are listed or exempted.
<a href="#">Philippines Inventory (PICCS)</a>	Not determined.
<a href="#">Taiwan Chemical Substances Inventory (TCSI)</a>	All components are listed or exempted.

## Section 16. Other information

### [Hazardous Material Identification System \(U.S.A.\)](#)

Health	1
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. 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 \(U.S.A.\)](#)



Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### [History](#)

<a href="#">Date of printing</a>	12/21/2022
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<a href="#">Date of previous issue</a>	5/24/2021
<a href="#">Version</a>	9

## Section 16. Other information

### 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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