SAFETY DATA SHEET

anderbilt Chemicals, LLC

Wholly Owned Subsidiary of R.T. Vanderbilt Holding Company, Inc

GHS United States

Outside US:

Section 1. Product and company identification **Product name** In case of emergency VANLUBE® 7611M 1-203-853-1400 53021 Code Chemtrec: 1-800-424-9300 Supplier/Manufacturer Vanderbilt Chemicals, LLC 30 Winfield Street +1-703-527-3887 Norwalk, CT 06855 Synonym Ashless organic sulfur and phosphorus compounds

Material uses Lubricant additives Liquid. **Product type**

Section 2. Hazards identification

OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture SKIN SENSITIZATION - Category 1B

GHS label elements

Hazard pictograms



Signal word	Warning		
Hazard statements	May cause an allergic skin reaction.		
Precautionary statements			
Prevention	Wear protective gloves. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.		
Response	IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.		
Storage	Not applicable.		
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

Substance

Ingredient name	CAS number	% by weight	
proprietary organic sulfur and phosphorus compounds	-	80 - 100	
Occupational exposure limits, if available, are listed in Section 8.			

Section 4. First aid measures

Description of necessary first aid measures			
Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.		
Inhalation	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 adverse health effects persist or are severe. 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.		
Skin contact	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.		
Ingestion	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 if adverse health effects persist or are severe. 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/effect	ets, 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	May cause an allergic skin reaction.
Ingestion	No known significant effects or critical hazards.
Over-exposure signs/symptom	<u>15</u>
Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: irritation redness
Ingestion	No specific data.

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

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Section 4. First aid measures

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. 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 an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides phosphorus 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.
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. 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 fo	containment and cleaning up
Small spill	Stop leak if without risk. Move containers from spill area. 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.
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Section 6. Accidental release measures

Large spill

Control parameters

None.

Occupational exposure limits

Stop leak if without risk. Move containers from spill area. 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 ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

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

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Section 8. Exposure controls/personal protection

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			
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.		
Personal protective equipment (Pictograms)			

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	Liquid.
Color	Amber. [Light]
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point	<-20°C (<-4°F)
Boiling point	265°C (509°F)
Flash point	Closed cup: 142°C (287.6°F) [Pensky-Martens.]
Burning time	Not applicable.
Burning rate	Not applicable.
Evaporation rate	<1 (butyl acetate = 1)
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	0.00013 kPa (0.001 mm Hg) [room temperature]
Vapor density	Not available.
Density	1.07 g/cm ³ [20°C (68°F)]
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Relative density	1.07
Solubility	Insoluble in the following materials: cold water.
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Section 9. Physical and chemical properties

Solubility in water	0.029 g/l
Partition coefficient: n- octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
SADT	Not available.
Viscosity	Kinematic (room temperature): 0.23 cm²/s (23 cSt) [at 25°C]

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	No specific data.
Incompatible materials	No specific data.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity				
Product/ingredient name	Result	Species	Dose	Exposure
proprietary organic sulfur and phosphorus compounds	LD50 Oral	Rat	>2500 mg/kg	-

Irritation/Corrosion

Not available.

Conclusion/Summary

Skin

proprietary organic sulfur and phosphorus compounds: Non-irritating to the skin. (Reconstructed Human Epidermis Test Method)

Eyes proprietary organic sulfur and phosphorus compounds: Non-irritating to the eyes. (Bovine Corneal Opacity and Permeability Test Method)

Sensitization

•	Route of exposure	Species	Result
proprietary organic sulfur and phosphorus compounds	skin	Mouse	Sensitizing

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Section 11. Toxicological information

Mutagenicity

Product/ingredient name	Test	Experiment	Result
proprietary organic sulfur and phosphorus compounds	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

Not available.

Conclusion/Summaryproprietary organic sulfur and phosphorus compounds:
First parental generation (P0)
NOAEL (PO) 150 mg/kg bw/day (nominal))
(male) based on: clinical signs [general toxicity] ; mortality [general toxicity]
NOAEL (PO) 50 mg/kg bw/day (nominal))
(female) based on: mortality [general toxicity]

F1 generation NOAEL (PO): 100 mg/kg bw/day (nominal) (male/female) based on: mortality - In dams at 150 mg/kg/day group

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely	Routes of entry anticipated: Dermal, Inhalation.
routes of exposure	

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin contact	May cause an allergic skin reaction.
Ingestion	May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

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Section 11. Toxicological information

Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: irritation redness
Ingestion	No specific data.

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 effect	t <u>s</u>
Not available.	
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.
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	2777.78 mg/kg

Other information

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
proprietary organic sulfur and phosphorus compounds	Acute EC50 11 mg/l	Algae	72 hours
	Acute EC50 >1 mg/l Acute EC50 >1000 mg/l Acute LC50 >10 mg/l	Daphnia Micro-organism Fish	48 hours 3 hours 96 hours

Persistence and degradability

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Section 12. Ecological information

Product/ingredient name	Test	Result		Dose		Inoculum
proprietary organic sulfur and phosphorus compounds	OECD 301B	42.57 % - N days	lot readily - 28	-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
proprietary organic sulfur and phosphorus compounds	-		-		Not rea	adily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
proprietary organic sulfur and phosphorus compounds	>6.2	-	high

Mobility in soil

Soil/water partition coefficient (Koc)

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. 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
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
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Section 14. Transport information

Section 14.	Transpor	rt information			
ADR/RID Class	UN3082	Environmentally hazardous substance, liquid, n.o.s. (organic sulfur and phosphorus compounds)	9		Remarks Marine pollutant
IMDG Class	UN3082	Environmentally hazardous substance, liquid, n.o.s. (organic sulfur and phosphorus compounds)	9	111	Remarks Marine pollutant
IATA-DGR Class	UN3082	Environmentally hazardous substance, liquid, n.o.s. (organic sulfur and phosphorus compounds)	9	111	Remarks Marine pollutant

PG* : Packing group

Section 15. Regulatory information

<u>United States inventory (TSCA 8b)</u> All components are listed or exempted.

U.S. Federal regulations

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

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification

SKIN SENSITIZATION - Category 1

Composition/information on ingredients

Name	%	Classification
proprietary organic sulfur and phosphorus compounds (NJTSR No. 800983-5102P)	80 - 100	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	None of the components are listed.

Section 15. Regulatory information

International regulations	
Australia inventory (AIIC)	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 (CSCL)	At least one component is not listed.
Korea inventory (KECI)	At least one component is not listed.
New Zealand Inventory of Chemicals (NZIoC)	All components are listed or exempted.
Philippines inventory (PICCS)	At least one component is not listed.
Taiwan Chemical Substances Inventory (TCSI)	All components are listed or exempted.

Section 16. Other information

Hazardous Material Identification System (U.S.A.)

Health		2
Flammability		1
Physical hazards		

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.)



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Section 16. Other information

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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 = Internediate 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 for more information.

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