

SAFETY DATA SHEET

GHS
United States
English (US)

Section 1. Identification

Product identifier	VANLUBE® 0902
Product code	51320
Chemical identity	Proprietary blend of sulfur and phosphorus lubricant additives and organic corrosion inhibitors
Other means of identification	Not available.
Product type	Liquid.
Material uses	Lubricant Additive
Supplier/Manufacturer	Vanderbilt Chemicals, LLC 30 Winfield Street Norwalk, CT 06855 1-203-853-1400
Emergency telephone number	Chemtrec: 1-800-424-9300 Outside US: +1-703-527-3887

Section 2. Hazard(s) 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 IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 TOXIC TO REPRODUCTION - Category 2

GHS label elements

Hazard pictograms



Signal word

Danger

Hazard statements

Causes skin irritation.
Causes serious eye damage.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Prevention

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. Wash thoroughly after handling.

Section 2. Hazard(s) identification

Response	IF exposed or concerned: Get medical advice or attention. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	Store locked up.
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 and ingredient information

Substance/mixture	Mixture
Chemical identity	Proprietary blend of sulfur and phosphorus lubricant additives and organic corrosion inhibitors
Other means of identification	Not available.

Ingredient name	CAS number	% by weight
mixture of sulfurized hydrocarbons	-	25 - 50
sulfur compound	-	10 - 30
amine phosphate	-	10 - 30
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	10 - 30
diphenylamine	122-39-4	0.1 - 0.3

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

Eye contact	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.
Inhalation	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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4. First aid measures

Skin contact	Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Get medical attention immediately. Call a poison center or physician. 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. 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

Eye contact	Causes serious eye damage.
Inhalation	No known significant effects or critical hazards.
Skin contact	Causes skin irritation.
Ingestion	No known significant effects or critical hazards.

Over-exposure signs/symptoms

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

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

Notes to physician	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
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 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
nitrogen oxides
sulfur 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.

Remark

Hydrogen disulfide may be released at temperatures above 60°C (140°F)

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. 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. 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. 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). 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 breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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. Store locked up. 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.

Headspace of storage vessel may contain small amounts (ppm levels) of hydrogen sulfide.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
amine phosphate benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	None. OSHA PEL (United States) TWA: 5 mg/m ³ . Form: Respirable dust. TWA: 10 mg/m ³ . Form: Respirable dust. ACGIH TLV (United States) TWA: 10 mg/m ³ . TWA: 3 mg/m ³ . Form: Respirable dust.
heterocyclic nitrogen compound diphenylamine	None. NIOSH REL (United States, 10/2020) TWA 10 hours: 10 mg/m ³ . CAL OSHA PEL (United States, 1/2025) TWA 8 hours: 10 mg/m ³ . OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 10 ppm. ACGIH TLV (United States, 1/2024) A4. TWA 8 hours: 10 mg/m ³ .

Appropriate engineering controls

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Section 8. Exposure controls and personal protection

Environmental exposure controls

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

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

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

Appearance

Physical state	Liquid.
Color	Clear Amber.
Odor	Sulfurous.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.

Section 9. Physical and chemical properties

Flash point	Closed cup: >98°C (>208.4°F) [Pensky-Martens]
Burning time	Not applicable.
Burning rate	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Hydrogen disulfide may be released at temperatures above 60°C (140°F)
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	1 to 1.06 mg/m ³ [25°C (77°F)]
Relative density	Not available.
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 SADT	Not available.
Viscosity	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°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 temperatures above 60°C (140°F) as hydrogen disulfide may be released.
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
diphenylamine	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Mouse	2720 mg/kg	-
	LD50 Oral	Rat	>800 mg/kg	-
	LD50 Oral	Rat	1165 mg/kg	-
mixture of sulfurized hydrocarbons	LD50 Dermal	Rabbit	38700 mg/kg	-
	LD50 Oral	Rat	6500 mg/kg	-
sulfur compound	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	16000 mg/kg	-
amine phosphate	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
sulfur compound	Eyes - Not irritant	Rabbit	-	-	-
	Skin - Not irritant	Rabbit	-	-	-
amine phosphate	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-
heterocyclic nitrogen compound	Eyes - Mild irritant	Rabbit	-	10 mg	-
diphenylamine	Eyes - Not irritant	Rabbit	-	-	-
	Skin - Not irritant	Rabbit	-	-	-

Conclusion/Summary

Skin

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene: Non-irritating to the skin. (Rabbit)

mixture of sulfurized hydrocarbons: Non-irritating to the skin.

Eyes

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene: Non-irritating to the eyes. (Rabbit)

mixture of sulfurized hydrocarbons: Non-irritating to the eyes.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
diphenylamine	skin	Guinea pig	Not sensitizing
sulfur compound	skin	Mouse	Not sensitizing
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	skin	Guinea pig	Not sensitizing

Mutagenicity

Section 11. Toxicological information

Product/ingredient name	Test	Experiment	Result
diphenylamine	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal	Negative
	OECD 486	Experiment: In vivo Subject: Mammalian-Animal	Negative
mixture of sulfurized hydrocarbons sulfur compound	-	Subject: Mammalian-Animal	Negative
	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	OECD 473	Experiment: In vitro Subject: Mammalian-Human	Negative
	OECD 471	Experiment: In vitro Subject: Bacteria	Negative

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
diphenylamine	Positive - Oral - TC	Rat - Male, Female	0 to 250 ppm	2 years

Conclusion/Summary

The International Agency for Research on Cancer (IARC) determined that there was inadequate evidence in humans and sufficient evidence in experimental animals for cancer. The overall evaluation is Group 2B. OSHA indicates that when present in mixtures at concentrations of less than 1 percent, the label warning is optional.

Product/ingredient name	OSHA	IARC	NTP
diphenylamine	-	2B	-

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
sulfur compound	-	-	-	Rat	Oral: 1000 ppm NOAEL, Adult	-
	-	-	-	Rat	Oral: >20000 ppm NOAEL, Offspring	-

Conclusion/Summary

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene: Suspected of damaging fertility based on a reproductive/developmental toxicity screening test (OECD 421) as a range finder followed by an extended one-generation reproductive toxicity study (OECD 443).

Section 11. Toxicological information

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
diphenylamine	Category 2	oral	blood system, kidneys, liver, spleen

Aspiration hazard

Not available.

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact	Causes serious eye damage.
Inhalation	No known significant effects or critical hazards.
Skin contact	Causes skin irritation.
Ingestion	No known significant effects or critical hazards.

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

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
sulfur compound	Sub-acute NOAEL Oral	Rat	1000 ppm	-

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

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	12500 mg/kg
Dermal	5617.98 mg/kg

Other information

benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene: Based on available data, the classification criteria for specific target organ toxicity (STOT) repeated exposure are not met.

A combined repeated-dose/reproductive/developmental toxicity screening test in rats via gavage was conducted at levels of 25, 75 and 225 mg/kg/bw/day. No deaths or treatment-related signs of toxicity, behavioral assessments, functional performance or sensory reactivity were noted at any dose. Hepatic toxicity was noted for animals in both sexes at 225 mg/kg bw/day.

Repeated dose toxicity study, rat, gavage, 28 days: LOEL = 125 mg/kg bw/day

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	
diphenylamine	Acute EC50 2.17 mg/l	Algae	72 hours	
	Acute EC50 2 mg/l	Daphnia	48 hours	
	Acute EC50 1.2 mg/l	Daphnia	48 hours	
	Acute LC50 2.2 mg/l	Fish	96 hours	
	Acute NOEC 0.37 mg/l	Algae	72 hours	
	Chronic NOEC 0.16 mg/l	Daphnia	21 days	
	sulfur compound	Acute EC50 >0.0325 mg/l	Algae	72 hours
		Acute EC50 >0.052 mg/l	Daphnia	48 hours
		Acute EC50 >1000 mg/l	Micro-organism	3 hours
		Acute LC50 >0.06 mg/l	Fish	96 hours
		Acute NOEC 0.0325 mg/l	Algae	72 hours
		Acute NOEC 0.052 mg/l	Daphnia	48 hours
		Acute NOEC 0.06 mg/l	Fish	96 hours
	Acute NOEC 1000 mg/l	Micro-organism	3 hours	
Chronic NOEC 0.247 mg/l	Daphnia	21 days		

Section 12. Ecological information

mixture of sulfurized hydrocarbons	Acute EC50 >1000 mg/l	Daphnia	48 hours
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Acute EC50 250 to 500 mg/l	Fish	96 hours
	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 51 mg/l	Daphnia	48 hours
	Acute IC50 >100 mg/l	Micro-organism	3 hours
	Acute LC50 >100 mg/l	Fish	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
diphenylamine sulfur compound	OECD 301D	26 % - Not readily - 28 days	-	-
	OECD 301B	21 % - Not readily - 28 days	-	Activated sludge

Conclusion/Summary

Diphenylamine is not readily biodegradable and due to low water solubility and low vapor pressure is not expected to partition to water or air if released into the environment.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	-	-	Not readily
sulfur compound	-	-	Not readily
mixture of sulfurized hydrocarbons	-	-	Not readily
diphenylamine	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	5.1	1730	High
sulfur compound	8.42	10.86	Low
diphenylamine	3.5	151.36	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

Section 13. Disposal considerations

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.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

PG* : Packing group

Section 15. Regulatory information

U.S. Federal regulations

TSCA 4(a) proposed test rules: heterocyclic nitrogen compound

TSCA 8(a) PAIR: diphenylamine

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

Clean Water Act (CWA) 311: hydrogen sulfide

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

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
hydrogen sulphide	≤0.1	Yes.	500	-	100	-

SARA 304 RQ 266666.7 lbs / 121066.7 kg [31050.9 gal / 117540.5 L]

Section 15. Regulatory information

SARA 311/312

Classification

SKIN IRRITATION - Category 2
 SERIOUS EYE DAMAGE - Category 1
 TOXIC TO REPRODUCTION - Category 2

Composition/information on ingredients

Name	%	Classification
diphenylamine	0.1 - 0.3	ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	10 - 30	TOXIC TO REPRODUCTION - Category 2
mixture of sulfurized hydrocarbons	25 - 50	FLAMMABLE LIQUIDS - Category 4
amine phosphate	10 - 30	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (dermal) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	diphenylamine	122-39-4	0.1 - 0.3
Supplier notification	diphenylamine	122-39-4	0.1 - 0.3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

None of the components are listed.

New York

None of the components are listed.

New Jersey

The following components are listed: Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

Pennsylvania

The following components are listed: Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

California Prop. 65

None of the components are listed.

Inventory list

Australia

All components are listed or exempted.

Canada

All components are listed or exempted.

China

All components are listed or exempted.

Japan

All components are listed or exempted.

New Zealand

All components are listed or exempted.

Philippines

All components are listed or exempted.

Republic of Korea

All components are listed or exempted.

Taiwan

All components are listed or exempted.

Section 15. Regulatory information

United States

All components are active or exempted.

Section 16. Any other relevant information

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

Health	*	3
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	5/5/2026
Date of issue/Date of revision	5/5/2026
Date of previous issue	6/5/2024
Version	15

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 for more information.

Notice to reader

Section 16. Any other relevant information

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