# **SAFETY DATA SHEET**

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

> GHS United States

		English (US
Section 1. Proc	luct and company identification	
Product name	AGERITE® SUPERFLEX® SOLID G PDR	In case of emergency
Code	03208	1-203-853-1400
Supplier/Manufacturer	Vanderbilt Chemicals, LLC 30 Winfield Street Norwalk, CT 06855	Chemtrec: 1-800-424-9300 Outside US: +1-703-527-3887
Chemical name	N-phenylbenzeneamine, 2-propanone reaction product	
Synonym	Di-phenylamine-acetone condensation product	
Material uses	Antioxidant.	
Product type	Powder.	
Section 2. Haza	ards identification	
OSHA/HCS status	This material is considered hazardous by the OSHA Haza (29 CFR 1910.1200).	ard Communication Standard
Classification of the substance or mixture	COMBUSTIBLE DUSTS EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED E)	XPOSURE) - Category 2
<u>GHS label elements</u> Hazard pictograms		
Signal word	Warning	
Hazard statements	May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repe May form combustible dust concentrations in air.	ated exposure.
Precautionary stateme	ints	
Prevention	Obtain special instructions before use. Do not handle un been read and understood. Wear protective gloves. Wea Recommended: lab coat. Wear eye or face protection: R with side-shields Do not breathe dust or mist. Wash th Contaminated work clothing must not be allowed out of th	ar protective clothing: ecommended: safety glasses oroughly after handling.

Response IF exposed or concerned: Get medical advice or attention. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

## Section 2. Hazards identification

Storage	Store locked up.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
Hazards not otherwise classified	None known.

## Section 3. Composition/information on ingredients

Substance/mixture

Mixture

Ingredient name	CAS number	% by weight
2-Propanone, reaction products with diphenylamine	68412-48-6	55 - 59
amorphous silica	7631-86-9	25
diphenylamine	122-39-4	16 - 20

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.
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 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.
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. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

Potential acute health effects	
Eye contact	Causes serious eye irritation.
Inhalation	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Validation date	1	7/18/2024	Date of previous issue	1	2/5/2021
-----------------	---	-----------	------------------------	---	----------

## Section 4. First aid measures

Skin contactMay cause an allergic skin reaction.IngestionNo known significant effects or critical hazards.Over-exposure signs/symptomsEye contactAdverse symptoms may include the following: pain or irritation watering rednessInhalationAdverse symptoms may include the following: respiratory tract irritation coughingSkin contactAdverse symptoms may include the following: respiratory tract irritation coughingSkin contactAdverse symptoms may include the following: respiratory tract irritation coughingNotes to physicianNo specific data.Indication of immediate medical attention and special treatment needed. if necessary The exposed person may need to be kept under medical surveillance for 48 hours.Specific treatmentsNo specific treatment.Protection of first-aidersNo 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.		
Over-exposure signs/symptoms   Eye contact Adverse symptoms may include the following: pain or irritation watering redness   Inhalation Adverse symptoms may include the following: respiratory tract irritation coughing   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   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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash	Skin contact	May cause an allergic skin reaction.
Eye contactAdverse symptoms may include the following: pain or irritation watering rednessInhalationAdverse symptoms may include the following: respiratory tract irritation coughingSkin contactAdverse symptoms may include the following: irritation rednessIngestionNo specific data.Indication of immediate medical attention and special treatment needed. if necessary Notes to physicianIn 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 Protection of first-aidersNo 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	Ingestion	No known significant effects or critical hazards.
pain or irritation watering rednessInhalationAdverse symptoms may include the following: respiratory tract irritation coughingSkin contactAdverse symptoms may include the following: irritation rednessIngestionNo specific data.Indication of immediate medical attention and special treatment needed, if necessary The exposed person may need to be kept under medical surveillance for 48 hours.Specific treatments Protection of first-aidersNo 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	Over-exposure signs/sympt	<u>oms</u>
Skin contactAdverse symptoms may include the following: irritation rednessIngestionNo specific data.Indication of immediate medical attention and special treatment needed, if necessaryNotes to physicianIn 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 treatmentsNo specific treatment. 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	Eye contact	pain or irritation watering
irritation rednessIngestionNo specific data.Indication of immediate medical attention and special treatment needed, if necessaryNotes to physicianIn 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 treatmentsNo specific treatment.Protection of first-aidersNo 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	Inhalation	respiratory tract irritation
Indication of immediate medical attention and special treatment needed, if necessaryNotes to physicianIn 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 treatmentsNo specific treatment.Protection of first-aidersNo 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	Skin contact	irritation
Notes to physicianIn 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 treatmentsNo specific treatment.Protection of first-aidersNo 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	Ingestion	No specific data.
Specific treatmentsThe exposed person may need to be kept under medical surveillance for 48 hours.Specific treatmentsNo specific treatment.Protection of first-aidersNo 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	Indication of immediate medi	cal attention and special treatment needed, if necessary
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	Notes to physician	
be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash	Specific treatments	No specific treatment.
	Protection of first-aiders	be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash

See toxicological information (Section 11)

# Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
Unsuitable extinguishing media	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
Specific hazards arising from the chemical	May form explosible dust-air mixture if dispersed.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark(s)	As with any dry material, pouring or allowing to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come in contact with the material or its container.

Validation date	1	7/18/2024	Date of previous issue	1	2/5/2021
-----------------	---	-----------	------------------------	---	----------

## Section 5. Fire-fighting measures

## Section 6. Accidental release measures

## Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. 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 con	tainment and cleaning up

Small spill	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	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. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. 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. Avoid exposure - obtain special instructions before use. 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 dust. Do not ingest. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dus accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. 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 befor entering eating areas. See also Section 8 for additional information on hygiene measures.	e
Validation date : 7/18/2024	Date of previous issue : 2/5/2021 4	/14

## 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 exponent must be carefully rescaled and kept upright to prevent lockage. Do not store in
	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**

Ingredient name	Exposure limits			
amorphous silica	NIOSH REL (United States, 10/2020). [SILICA, AMORPHOUS] TWA: 6 mg/m <sup>3</sup> 10 hours. OSHA PEL Z3 (United States).			
	TWA: 0.8 mg/m <sup>3</sup> , (The exposure limit is calculated from the equation , 80/(% SiO2), using a value of 100% SiO2. Lower values of % SiO2 will give higher exposure limits.)			
diphenylamine	ACGIH TLV (United States, 1/2023). TWA: 10 mg/m <sup>3</sup> 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 10 ppm 8 hours. NIOSH REL (United States, 10/2020).			
	TWA: 10 mg/m <sup>3</sup> 10 hours. <b>CAL OSHA PEL (United States, 5/2018).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.			

Appropriate engineering controls	Use only with adequate ventilation. If user operations generate dust, fumes, gas, va or mist, use process enclosures, local exhaust ventilation or other engineering contri- to keep worker exposure to airborne contaminants below any recommended or statu limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.	ols utory		
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure hey 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, unles the assessment indicates a higher degree of protection: chemical splash goggles. I operating conditions cause high dust concentrations to be produced, use dust goggle Recommended: safety glasses with side-shields.	lf		
Skin protection				
Validation date : 7/18/2024	Date of previous issue : 2/5/2021	5/14		

## Section 8. Exposure controls/personal protection

Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Dust respirator.
Personal protective equipment (Pictograms)	

# Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	Solid. [Powder.]
Color	Brown. [Dark]
Odor	Aromatic. Amine-like.
Odor threshold	Not available.
рН	Not available.
Melting point	75 to 90°C (167 to 194°F)
Boiling point	170°C (338°F)
Flash point	Closed cup: 110°C (230°F)
Burning time	Not available.
Burning rate	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not applicable.
Vapor pressure	Not available.
Vapor density	Not applicable.
Density	1.25 g/cm <sup>3</sup>
Relative density	1.25
Solubility	Insoluble in the following materials: cold water.
Solubility in water	Not available.
Partition coefficient: n-	Not applicable.
octanol/water	
Auto-ignition temperature	Not applicable.
Validation date : 7/18/2024	Date of previous issue : 2/5/2021

## Section 9. Physical and chemical properties

Decomposition temperature	Not available.
SADT	Not available.
Viscosity	Not applicable.

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 the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible materials	Reactive or incompatible with the following materials: Strong acids, strong bases, strong oxidizing agents.
Hazardous decomposition products	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Nitrogen oxides (NOx) Oxides of silicon Oxides of calcium

# Section 11. Toxicological information

## Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-Propanone, reaction products with diphenylamine	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
amorphous silica	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
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	-

## Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
amorphous silica	Eyes - Mild irritant	Rabbit		24 hours 25 mg	-

**Conclusion/Summary** 

Validation date : 7/18/2024 Date of previous issue : 2/5/2021

## Section 11. Toxicological information

Skin	2-Propanone, reaction products with diphenylamine: Non-irritating to the skin. (Rabbit) diphenylamine: Non-irritating to the skin. (Rabbit)
Eyes	2-Propanone, reaction products with diphenylamine: Non-irritating to the eyes. (Rabbit) diphenylamine: Causes eye irritation. (Rabbit)

#### **Sensitization**

Product/ingredient name	Route of exposure	Species	Result
2-Propanone, reaction products with diphenylamine	skin	Human	Sensitizing
amorphous silica diphenylamine	skin skin	Mouse Guinea pig	Not sensitizing Not sensitizing

#### **Mutagenicity**

Product/ingredient name	Test	Experiment	Result
2-Propanone, reaction products with diphenylamine	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
amorphous silica	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
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

#### Carcinogenicity

Product/ingredient name	Result	Result		Species	Dose	Exposure		
diphenylamine	Positive -	Positive - Oral - TC		Rat - Male, Female	0 to 250 ppm	2 years		
Conclusion/Summary	diphen	diphenylamine: IARC Group 2B (possibly carcinogenic to humans).						
Product/ingredient name	OSHA	IARC	NTP					
amorphous silica diphenylamine	-	3 2B	-					

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

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

Not available.

# Section 11. Toxicological information

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

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

#### Aspiration hazard

Not available.

Information on the likely routes of exposure	Routes of entry anticipated: Oral, Inhalation, Eyes.
Potential acute health effects	
Eye contact	Causes serious eye irritation.
Inhalation	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Skin contact	May cause an allergic skin reaction.
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 or irritation watering redness
Inhalation	Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	Adverse symptoms may include the following: irritation redness
Ingestion	No specific data.

Delayed and immediate effec	ts and also chronic effects fro	om short and long	<u>term exposure</u>	
<u>Short term exposure</u>				
Potential immediate effects	Not available.			
Potential delayed effects	Not available.			
<u>Long term exposure</u>				
Potential immediate effects	Not available.			
Potential delayed effects	Not available.			
Potential chronic health effe	ects			
Product/ingredient name	Result	Species	Dose	Exposure
diphenylamine	Chronic LOAEL Oral Chronic NOAEL Oral	Rat Rat	30 mg/kg 3 mg/kg	-

**Conclusion/Summary** Amorphous silica is classified as a nuisance dust.

# Section 11. Toxicological information

General	May cause damage to organs through prolonged or repeated exposure. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
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	No known significant effects or critical hazards.

### Numerical measures of toxicity

Not available.

### Other information

Not available.

# Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
2-Propanone, reaction products with diphenylamine	Acute EC50 >100 mg/l	Algae	48 hours
,	Acute EL50 >100 mg/l	Daphnia	48 hours
	Acute EC50 >1000 mg/l	Micro-organism	3 hours
	Acute LL50 >100 mg/l	Fish	96 hours
amorphous silica	Acute EC50 >100 mg/l	Algae	72 hours
·	Acute EC50 >1000 mg/l	Daphnia	48 hours
	Acute EC50 2.2 g/L Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	Chronic NOEC 12.5 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
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

## Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
2-Propanone, reaction products with diphenylamine diphenylamine	OECD 301F OECD 301D	0 % - Not readily - 28 days 26 % - Not readily - 28 days		-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodegradability	
2-Propanone, reaction products with diphenylamine diphenylamine	-		-		Not rea	

Acute toxicity estimates

# Section 12. Ecological information

### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
diphenylamine	3.5	151.36	Low

## Mobility in soil

Soil/water partition Not a 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	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (diphenylamine)	9	111		<u>Remarks</u> Marine pollutant
TDG Classification	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (diphenylamine)	9	111		Remarks Marine pollutant
Validation date : 7/	/18/2024	Date of previous issue :	2/5/2021			11/1

#### Section 14. Transport information UN3077 ENVIRONMENTALLY ADR/RID Class 9 Ш Remarks ᠕ᡅ HAZARDOUS Marine pollutant SUBSTANCE, SOLID, N.O.S. (diphenylamine) **IMDG Class** UN3077 ENVIRONMENTALLY 9 Ш Remarks HAZARDOUS Marine pollutant SUBSTANCE, SOLID, N.O.S. (diphenylamine) ENVIRONMENTALLY 9 Ш **IATA-DGR Class** UN3077 HAZARDOUS SUBSTANCE, SOLID, N.O.S. (diphenylamine)

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) PAIR: diphenylamine

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

#### COMBUSTIBLE DUSTS EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

#### **Composition/information on ingredients**

Name	%	Classification	
2-Propanone, reaction products with diphenylamine	55 - 59	SKIN SENSITIZATION - Category 1	
diphenylamine	16 - 20	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	
alidation date : 7/18/2024	Date of previo	us issue : 2/5/2021	12/14

## Section 15. Regulatory information

EXPOSURE) - Category 2

SARA 313				
	Product name	CAS number	%	
Form R - Reporting requirements	diphenylamine	122-39-4	16 - 20	
Supplier notification	diphenylamine	122-39-4	16 - 20	

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

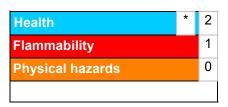
nternetional regulations

Massachusetts	The following components are listed: DIATOMACEOUS EARTH; DIPHENYLAMINE
New York	None of the components are listed.
New Jersey	The following components are listed: DIPHENYLAMINE
Pennsylvania	The following components are listed: SILICA; BENZENAMINE, N-PHENYL-
California Prop. 65	None of the components are listed.

All components are listed or exempted.
All components are listed or exempted.
At least one component is not listed.
All components are listed or exempted.
All components are listed or exempted.
At least one component is not listed.

## Section 16. Other information

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



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.

## Section 16. Other information

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

Date of printing	7/18/2024
Validation date	7/18/2024
Date of previous issue	2/5/2021
Version	3
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association IBC = 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

Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product in violation of any patent or in violation of any law or regulation. It is the user's responsibility to determine for himself the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.