

1. Identification

Product identifier	ZONATAC™ NG98	
Other means of identification		
SDS number	7166	
Product Code	200000000325	
Recommended use	Industrial uses: Uses of substances as such or in preparations at industrial sites. Formulation [mixing] of preparations and/or re-packaging (excluding alloys).	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Company	Arizona Chemical Company LLC	
Address	Building 100 4600 Touchton Road East, Suite 1200	
City/State	Jacksonville, FL	
Zip	32246	
Country	USA	
Phone Number	904-928-8700	
Alternate Phone Number	800-526-5294	
Fax Number	904-928-8780	
Emergency-US	CHEMTREC 800-424-9300	

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Sensitization, skin	Category 1B
OSHA defined hazards	Combustible dust	

Label elements



Signal word	Warning	
Hazard statement	May cause an allergic skin reaction. May form combustible dust concentrations in air.	
Precautionary statement		
Prevention	Avoid breathing dust/fume. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing must not be allowed out of the workplace. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Prevent dust accumulation to minimize explosion hazard. Observe good industrial hygiene practices.	
Response	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.	
Storage	Store away from incompatible materials.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	None.	

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes		936322-31-5	95 - 100
Other components below reportable levels			0-5

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Apply extinguishing media carefully to avoid creating airborne dust.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	High concentration of airborne dust may form explosive mixture with air. Static charges generated by emptying package in or near flammable vapor may cause flash fire. During fire, gases hazardous to health may be formed. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Wear suitable protective equipment. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	May form combustible dust concentrations in air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Use only non-sparking tools. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Follow all SDS/label precautions even after container is emptied because they may retain product residues.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store at ambient temperature and atmospheric pressure. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-3 (29 CFR 1910.1000)

Additional components

	Type	Value	Form
Dust	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection

Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.



General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Eye wash fountain and emergency showers are recommended.

9. Physical and chemical properties

Appearance	Solid.
Physical state	Solid.
Form	Pellets. or Prills
Color	Light yellow
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	206.6 °F (97 °C)
Initial boiling point and boiling range	> 750.2 °F (> 399 °C)
Flash point	420.8 °F (216.0 °C) Setaflash Closed Cup
Evaporation rate	0 n-BuAc=1
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 0.001 mm Hg at 25°C
Vapor density	Not available.
Relative density	> 1 at 25°C
Solubility(ies)	
Solubility (water)	< 0.1 % at 25°C
Partition coefficient (n-octanol/water)	> 6.5
Auto-ignition temperature	726.8 °F (386 °C)
Decomposition temperature	Not available.
Viscosity	22150 - 24350 mPa·s Brookfield at 121°C
Other information	
Bulk density	> 1000 kg/m ³ at 20°C
Chemical family	Terpene Resin
Density	1.02 g/cm ³ estimated
Percent volatile	1.5 - 2.5 % EPA Method 24 estimated
VOC	1.5 - 2.5 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Strong oxidizing agents. Keep away from heat, sparks and open flame. Contact with incompatible materials. Minimize dust generation and accumulation.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide, water and other products of combustion.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
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Skin contact May cause an allergic skin reaction.
Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes
50 % Local Lymph Node Assay - Lowest Concentration Producing Reaction, SI=5.3; May cause sensitization by skin contact.
Result: Positive
Species: Mouse
Organ: Skin
Notes: OECD 429

Eye contact Direct contact with eyes may cause temporary irritation.
Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes
Irritation Corrosion - Eye, May cause eye irritation.;
Result: Positive
Species: New Zealand white rabbit
Organ: Eye
Observation Period: 72 hr
Severity: Mild
Notes: OECD 405

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms related to the physical, chemical and toxicological characteristics Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity May cause an allergic skin reaction.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Corrosivity

Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes
Acute Dermal Irritation/Corrosion, Mild skin irritation.;
Result: Positive
Species: New Zealand white rabbit
Organ: Skin
Test Duration: 4 hr
Observation Period: 72 hr
Severity: Mild
Irritation Corrosion - Skin, No skin irritation.
Result: Negative
Species: New Zealand white rabbit
Organ: Skin
Test Duration: 24 hr
Observation Period: 72 hr

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Eye Contact

Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes
Irritation Corrosion - Eye, May cause eye irritation.;
Result: Positive
Species: New Zealand white rabbit
Organ: Eye
Observation Period: 72 hr
Severity: Mild
Notes: OECD 405

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Skin sensitization

Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes
50 % Local Lymph Node Assay - Lowest Concentration Producing Reaction, SI=5.3; May cause sensitization by skin contact.
Result: Positive
Species: Mouse
Organ: Skin
Notes: OECD 429

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Mutagenicity

Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes

Germ Cell Mutagenicity: Ames, No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Result: Negative

Species: Salmonella typhimurium

Notes: OECD 471

Germ Cell Mutagenicity: Chromosome Abberation, This material is considered to be non-clastogenic to human lymphocytes in vitro.

Result: Negative

Species: Human

Notes: OECD 473

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

Further information

Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes

Cytotoxicity - in Vitro, Not cytotoxic

Result: Negative

Species: Mouse

Organ: Fibroblasts cells

Observation Period: 48 hr

Notes: ISO 10993-5

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes (CAS 936322-31-5)	EL50	Green algae > 1000 mg/l, 72 hr OECD 201
	NOEL	Green algae 1000 mg/l, 72 hr OECD 201
Aquatic		
	Crustacea	EL50 Water flea (Daphnia magna) > 1000 mg/l, 48 hr OECD 202
	Fish	LL50 Rainbow Trout > 1000 mg/l, 96 hr OECD 203
		NOEL Rainbow Trout 1000 mg/l, 96 hr OECD 203

* Estimates for product may be based on additional component data not shown.

Persistence and degradability Not readily degradable.

Biodegradability

Percent degradation (Aerobic biodegradation)

Terpenes and Terpenoids, turpentine-oil, a-pinene fraction, polymers with 1-methyl-4-(1-methylethenyl)cyclohexene, styrene and turpentine-oil b-pinene fraction terpenes

39 % CO2 Evolution Test

Result: Not readily biodegradable

Species: Activated sewage sludge

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

ZONATAC™ NG98

> 6.5

Mobility in soil No data available.
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

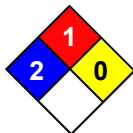
Safe Drinking Water Act (SDWA)

Not regulated.

NFPA ratings

Health: 2
Flammability: 1
Instability: 0

NFPA ratings



16. Other information, including date of preparation or last revision

Issue date 11-12-2014

Revision date 11-30-2016

Version # 3.0

Further information Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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Revision information

Regulatory information: State regulations

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