

## 1. IDENTIFICATION

**Catalog Number / Product Name:** 31005 / Acid Matrix Spike Mix  
**Company:** Restek Corporation  
**Address:** 110 Benner Circle  
Bellefonte, Pa. 16823  
**Phone#:** 814-353-1300  
**Fax#:** 814-353-1309  
**Emergency#:** 800-424-9300 (CHEMTREC)  
703-527-3887 (Outside the US)  
**Email:** www.restek.com  
**Revision Number:** 7  
**Intended use:** For Laboratory use only

## 2. HAZARD(S) IDENTIFICATION

### Emergency Overview:

**GHS Hazard Symbols:**



**GHS Classification:** Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1  
Flammable Liquid Category 2  
Acute Toxicity - Inhalation Dust / Mist Category 3  
Acute Toxicity - Dermal Category 3  
Acute Toxicity - Oral Category 3

**GHS Signal Word:** Danger

**GHS Hazard:** Highly flammable liquid and vapour.  
Toxic if swallowed, in contact with skin or if inhaled.  
Causes damage to organs.

**GHS Precautions:**

**Safety Precautions:** Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilation and lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wash hands and skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Measures:** IF SWALLOWED: Immediately call a POISON CENTER/doctor/....  
IF ON SKIN: Wash with plenty of soap and water.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF exposed: Call a POISON CENTER or doctor/physician.  
Call a POISON CENTER or doctor/physician.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
Specific treatment see section 4.  
Rinse mouth.  
Take off immediately all contaminated clothing and wash it before reuse.  
In case of fire: Use extinguishing media in section 5 for extinction.

**Storage:** Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.

**Disposal:** Dispose of contents/container according to section 13 of the SDS.

**Single Exposure Target Organs:** No data available.

**Repeated Exposure Target Organs:** No data available.

### 3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.250000
phenol	108-95-2	203-632-7	0.150000
2-chlorophenol	95-57-8	202-433-2	0.150000
4-nitrophenol	100-02-7	202-811-7	0.150000
4-chloro-3-methylphenol	59-50-7	200-431-6	0.150000
pentachlorophenol	87-86-5	201-778-6	0.150000

### 4. FIRST-AID MEASURES

**Inhalation:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

**Eyes:** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**Ingestion:** Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

### 5. FIRE- FIGHTING MEASURES

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

**Fire and/or Explosion Hazards:** Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

**Fire Fighting Methods and Protection:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Equipment:** Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

**Methods for Clean-up:** Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal

protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## 7. HANDLING AND STORAGE

<b>Handling Technical Measures and Precautions:</b>	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
<b>Storage Technical Measures and Conditions:</b>	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
phenol	108-95-2	ND		5 ppm TWA	5 ppm TWA; 19 mg/m3 TWA
2-chlorophenol	95-57-8	ND		No TLV	No data available.
4-nitrophenol	100-02-7	ND		No TLV	No data available.
4-chloro-3-methylphenol	59-50-7	ND		No TLV	No data available.
pentachlorophenol	87-86-5	ND	1 mg/m3 STEL (inhalable fraction and vapor)	0.5 mg/m3 TWA	0.5 mg/m3 TWA

### Personal Protection:

#### Engineering Measures:

Local exhaust ventilation is recommended when generating excessive levels of vapors from handling or thermal processing.

#### Respiratory Protection:

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

#### Eye Protection:

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

#### Skin Protection:

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance, color:</b>	No data available.
<b>Odor:</b>	Mild
<b>Physical State:</b>	No data available.
<b>pH:</b>	No data available.
<b>Vapor Pressure:</b>	No data available.
<b>Vapor Density:</b>	1.1 (air = 1)
<b>Boiling Point:</b>	No data available.
<b>Melting Point:</b>	-98 °C
<b>Flash Point:</b>	52
<b>Flammability:</b>	Highly Flammable
<b>Upper Flammable/Explosive Limit, % in air:</b>	36
<b>Lower Flammable/Explosive Limit, % in air:</b>	6
<b>Autoignition Temperature:</b>	464 deg C
<b>Decomposition Temperature:</b>	No data available.
<b>Specific Gravity:</b>	0.791 - 0.792 g/cm3 at 20 °C
<b>Evaporation Rate:</b>	No data available.
<b>Odor Threshold:</b>	No data available.
<b>Solubility:</b>	Moderate; 50-99%

Partition Coefficient: n-octanol in water: No data available.  
VOC % by weight: 99.25  
Molecular Weight: 32.04

## 10. STABILITY AND REACTIVITY

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**Stability:** Stable under normal conditions.  
**Conditions to Avoid:** No data available.  
**Materials to Avoid / Chemical Incompatibility:** Strong oxidizing agents  
**Hazardous Decomposition Products:** Carbon dioxide Carbon monoxide

## 11. TOXICOLOGICAL INFORMATION

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**Routes of Entry:** Inhalation, Skin Contact, Eye Contact, Ingestion  
**Target Organs Potentially Affected By Exposure:** Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract  
**Chemical Interactions That Change Toxicity:** None Known

### Immediate (Acute) Health Effects by Route of Exposure:

**Inhalation Irritation:** Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.  
**Inhalation Toxicity:** Harmful! Can cause systemic damage (see "Target Organs")Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.  
**Skin Contact:** Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.  
**Eye Contact:** Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.  
**Ingestion Irritation:** Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.  
**Ingestion Toxicity:** Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

### Long-Term (Chronic) Health Effects:

**Carcinogenicity:** Contains a probable or known human carcinogen.  
**Reproductive and Developmental Toxicity:** Contains a known human reproductive and/or developmental hazard.  
**Inhalation:** Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs")  
**Skin Contact:** Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.  
**Ingestion:** Toxic if swallowed. May cause target organ failure and/or death.

### **Component Toxicological Data:**

**NIOSH:**

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

### **Component Carcinogenic Data:**

**OSHA:**

Chemical Name	CAS No.
No data available.	

**ACGIH:**

Chemical Name	CAS No.
No data available.	

**NIOSH:**

Chemical Name	CAS No.
No data available.	

**NTP:**

Chemical Name	CAS No.
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No data available.

**IARC:**

Chemical Name	CAS No.	Group No.
No data.		Group 1
No data.		Group 2A
Pentachlorophenol	87-86-5	Group 2B

**12. ECOLOGICAL INFORMATION**

<b>Overview:</b>	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
<b>Mobility:</b>	No data
<b>Persistence:</b>	No data
<b>Bioaccumulation:</b>	No data
<b>Degradability:</b>	Biodegrades slowly.
<b>Ecological Toxicity Data:</b>	No data available.

**13. DISPOSAL CONSIDERATIONS**

<b>Waste Description of Spent Product:</b>	Spent or discarded material is a hazardous waste.
<b>Disposal Methods:</b>	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
<b>Waste Disposal of Packaging:</b>	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

**14. TRANSPORTATION INFORMATION**

<b>United States:</b>	
<b>DOT Proper Shipping Name:</b>	Methanol
<b>UN Number:</b>	UN1230
<b>Hazard Class:</b>	3
<b>Packing Group:</b>	II

<b>International:</b>	
<b>IATA Proper Shipping Name:</b>	Methanol
<b>UN Number:</b>	UN1230
<b>Hazard Class:</b>	3(6.1)
<b>Packing Group:</b>	II

**Marine Pollutant:** No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available.			

**15. REGULATORY INFORMATION**

**United States:**

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
phenol	108-95-2	X	X	X	X
2-chlorophenol	95-57-8	X	-	-	X
4-nitrophenol	100-02-7	X	X	-	X
4-chloro-3-methylphenol	59-50-7	X	-	-	X
pentachlorophenol	87-86-5	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Pentachlorophenol	87-86-5	Prop 65 Cancer
Methanol	67-56-1	Prop 65 Develop Tox

**State Right To Know Listing:**

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
phenol	108-95-2	X	X	X	X
2-chlorophenol	95-57-8	X	X	X	X

4-nitrophenol	100-02-7	X	X	X	X
4-chloro-3-methylphenol	59-50-7	X	X	X	X
pentachlorophenol	87-86-5	X	X	X	X

## 16. OTHER INFORMATION

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**Prior Version Date:** 02/11/14

**Other Information:** Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

**References:** No data available.

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