

## Mehmet KILIÇ

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**Kimden:** MKE İkmal Dairesi <mkekikm@mkek.gov.tr>  
**Gönderme Tarihi:** 30 Mart 2018 Cuma 11:40  
**Kime:** MKE İkmal Dairesi  
**Konu:** Ynt: 3.021 kg. Tetril'in FOB Doğu Kıyısı Limanı ABD'den Derince Limanına taşıtılması işi.  
**Ekler:** 912 - SDS-TETRYL.PDF  
**Önem:** Yüksek

Sayın İlgili,

Kurumumuz ihtiyacı 3.021 kg. Tetril'in FOB Doğu Kıyısı Limanı ABD'den Derince Limanına taşıtılması işine ilişkin üretici firmadan alınan MSDS formu ektedir. Teklif verirken bu hususun dikkate alınmasını rica ederiz.

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## Safety Data Sheet

<b>Section 1: Identification</b>				
<b>Product Identifier/Name:</b> Tetryl				
<b>Product Use:</b> Military or Industrial		<b>Product Uses Advised Against:</b> None		
<b>Manufacturer/Supplier:</b> Mil-Spec Industries Corp. 42 Herb Hill Road Glen Cove, NY 11542		<b>Telephone Number:</b> (516) 625-5787 <b>Emergency Number:</b> 1-800-255-3924 (US/Canada) +1-813-248-0585 (International)		
<b>Section 2: Hazard Identification</b>				
<b>GHS Classification:</b> Explosives		<b>Signal Word:</b> DANGER		
<b>Pictograms:</b>     				
<b>Hazard Statements:</b> Explosive; mass explosion hazard - H201 May intensify fire, oxidizer - H272 Toxic if swallowed - H301 Causes skin irritation - H315 Causes eye irritation - H319 May cause respiratory irritation - H335		<b>Precautionary Statements:</b> Keep away from heat/sparks/open flames. No smoking - P201 Do not subject to grinding/shock/friction - P250 Avoid breathing dust - P261 Contaminated work clothing should not be allowed of the workplace - P272 In case of inadequate ventilation wear respiratory protection. - P285 Wash thoroughly after handling - P280 Use personal protective equipment (PPE) as required - P281		
<b>Response Precautionary Statements:</b> Explosion risk in case of fire - P372 DO NOT fight fire when reaches explosives - P373 Evacuate area - P380		<b>Storage Precautionary Statements:</b> Keep container tightly closed - P233 Store in accordance with local/regional/national/international regulations - P401		
<b>Disposal Precautionary Statements:</b> Dispose of contents/containers in accordance with local/regional/national/international regulations - P501				
<b>Section 3: Composition/Information on Ingredients</b>				
<b>Chemical Name</b>	<b>Trade, Common Names</b>	<b>CAS Number</b>	<b>EC Number</b>	<b>Composition</b>
Tetryl	nitramine; tetralite; tetril; 2,4,6-trinitrophenylmethylnitramine	479-45-8	207-531-9	100%
<b>Section 4: First-Aid Measures</b>				
<b>Inhalation:</b>	Avoid inhaling dusts or fumes. Remove to fresh air. Give oxygen if possible. Get medical attention.			
<b>Skin:</b>	Avoid skin contact. If on skin, wash with soap then rinse thoroughly.			
<b>Eyes:</b>	If in eyes, flush eyes with water for at least 15 minutes. If eye irritation persists, get medical attention.			
<b>Ingestion:</b>	Get medical attention.			

Routes & Effects of Exposure	Acute Symptoms	Chronic Symptoms				
Inhalation/Ingestion:	Sneezing, cough, coryza; irritability; malaise (vague feeling of discomfort), headache, lassitude (weakness, exhaustion); nausea, vomiting. May be toxic if swallowed.	May cause insomnia and anemia. May damage liver, kidneys, respiratory and central nervous systems.				
Skin:	May cause allergic skin reaction; sensitization dermatitis, itching, erythema (skin redness); edema on nasal folds, cheeks, and neck.	Unknown				
Eyes:	May cause eye irritation; keratitis (inflammation of the cornea)	Unknown				
<b>Section 5: Fire-Fighting Measures</b>						
Extinguishing Media:	Water deluge preferred	Unsuitable Extinguishing Media: N/A				
Special Hazards from the Chemicals:	Explosion risk in case of fire					
Special Protective Equipment & Precautions for Firefighters:	If explosive is burning, evacuate immediately and DO NOT fight the fire. Any firefighting done to non-explosives should be done remotely; use information such as quantity of explosives and DOT Emergency Response Guide (ERG) to determine the safe distance. Anticipate flying and falling fragments following an explosion; utilize PPE and other means, such as terrain, to shield the body.					
<b>Section 6: Accidental Release Measures</b>						
Personal Precautions, Protective Equipment, and Emergency Procedures:	Eliminate ignition sources. Do not walk through spilled material. Remove nonessential people from the scene. Use PPE and nonsparking tools as needed.					
Environmental Precautions:	Avoid run off to waterways and sewers. Collect spilled material.					
<b>Methods &amp; Materials for Containment and Clean-Up:</b> If material is released; clean up spills immediately using nonconductive hand tools, such as a soft bristle brush and rubber or plastic collection tool (dust pan, shovel, piece of cardboard, etc.) Use extreme caution while sweeping up tetryl because of the danger of ignition from shock. Avoid pinching material, metal to metal contact, impact with sharp objects and friction--all of which could initiate the explosive. Explosive material may be wetted with water to desensitize prior to clean up.						
<b>Section 7: Handling &amp; Storage</b>						
Precautions for Safe Handling:	Keep away from heat and ignition sources. Do not smoke. Do not expose charge or it's container to pressure, cutting, welding, drilling, heat, flames or other activities that could be ignition sources.					
Conditions for Safe Storage:	Store in a designated place. Keep containers closed when not in use. Tetryl is very sensitive to shock and vibration.					
Incompatible Materials:	Oxidizable materials, hydrazine.					
<b>Section 8: Exposure Controls/Personal Protection</b>						
<b>Control Parameters:</b>						
Chemical Name:	OSHA		NIOSH		ACGIH	
	PEL	IDLH	TWA	IDLH	TLV	STEL/C
Tetryl	1.5 mg/m <sup>3</sup> (skin)	750 mg/m <sup>3</sup>	1.5 mg/m <sup>3</sup> (skin)	750 mg/m <sup>3</sup>	1.5 mg/m <sup>3</sup>	No data

<b>Exposure Times:</b>	PEL/TWA/TLV=8 hours. IDLH=30 minutes, without any escape impairing symptoms or long term effects. STEL=15 minutes. C=No amount of exposure is acceptable above this level.		
<b>Keys to Abbreviations</b>			
OSHA= Occupational Safety & Health Administration		PEL= Permissible Exposure Limit	C= Ceiling
NIOSH= National Institute of Occupational Safety & Health		TWA= Time-Weighted Average	
ACGIH= American Conference of Governmental Industrial Hygienists		TLV-Threshold Limit Value	
IDLH=Immediately Dangerous to Life & Health		STEL=Short Term Exposure Limit	
<b>Exposure Controls:</b>			
<b>Engineering Controls:</b>	Use outdoors or in ventilated areas to keep dust/fumes below exposure limits.		
<b>Personal Protective Equipment:</b>			
<b>Respiratory</b>	NIOSH approved respirator necessary when handling. Allow ample time for vapors to disperse following a detonation. Follow designated Safety & Industrial Hygiene protocols following detonation.		
<b>Eye</b>	ANSI approved Safety glasses and side shields or goggles are recommended.		
<b>Ears</b>	Hearing protection is recommended at detonation time.		
<b>Hands</b>	Butyl gloves are necessary when handling and cleaning up.		
<b>Body</b>	Cotton clothing is recommended to control static electricity, if handling explosive powder.		
<b>Personal Hygiene Measures:</b>	Wash hands after handling and use. Keep away from food, drinks, tobacco products, or any other items that may touch the body or be ingested. Change uniform daily. Store and wash work uniform separate from other clothing.		
<b>Section 9: Physical &amp; Chemical Properties</b>			
<b>Physical State:</b>	Solid	<b>Vapor Pressure:</b>	1.2X10 <sup>-7</sup> mm Hg @ 25 °C
<b>Color:</b>	Colorless to yellow crystalline	<b>Vapor Density:</b>	No data
<b>Odor:</b>	Odorless	<b>Relative Humidity:</b>	No data
<b>Odor Threshold:</b>	No data	<b>Solubility:</b>	74 mg/L @ 25 °C
<b>pH Value:</b>	No data	<b>Partition Coefficient:</b>	No data
<b>Melting Point:</b>	131° C	<b>Specific Gravity:</b>	1.57
<b>Boiling Point:</b>	187° C (will explode)	<b>Autoignition Temp:</b>	No data
<b>Flash Point:</b>	Explodes	<b>Decomposition Temp:</b>	187° C (will explode)
<b>Evaporation Rate:</b>	No data	<b>Explosive Limits:</b>	<i>Explosion caused by friction, impact, static electricity, or heat</i>
<b>Flammability:</b>	Explosive		
<b>Section 10: Stability &amp; Reactivity</b>			
<b>Chemical Stability:</b>	Stable under normal storage and handling conditions.		
<b>Possibility of Hazardous Reactions:</b>	Explosion		
<b>Conditions to Avoid:</b>	Avoid friction, impact, shock, heat, electrostatic discharge.		
<b>Incompatible Materials:</b>	Oxidizable materials, hydrazine, trioxxygen difluoride.		
<b>Hazardous Decomposition Products:</b>	Emits toxic oxides of nitrogen and carbon monoxide.		
<b>Section 11: Toxicological Information</b>			
<b>Routes &amp; Symptoms of Exposure - Refer to Section 4 – First-Aid Measures</b>			
<b>Target Organs:</b>	Eyes, Skin, Respiratory System, Central Nervous System, Liver, and Kidneys.		
<b>Information on Toxicological Information</b>			
<b>Chemical Name</b>	<b>Testing Data</b>	<b>Carcinogenicity</b>	<b>Mutagen/Teratogen</b>
Tetryl	LDLO: Dog - 5000 mg/kg subcutaneous	A3-Known carcinogen in animals, unknown effects in humans.	Reported mutagen.

Section 12 Ecological Information:					
<b>Toxicity:</b>		Tetryl is a potentially toxic substance, but does not exist naturally in the environment.			
<b>Persistence and Degradability:</b>		Tetryl is not expected to remain in the air or the soil for very long amounts of time. The half-life of tetryl in the air is 13 days. Tetryl contaminated soil can be remediated through biodegradation.			
<b>Bioaccumulative Potential:</b>		BCF=4; log Kow=1.64; These suggest that the potential for bioconcentration for aquatic organisms is low.			
<b>Mobility in Soil:</b>		Tetryl is expected to be slightly mobile in the soil.			
<b>Other Adverse Effects:</b>		No data found.			
Section 13 Disposal Considerations:					
Follow all local, state, federal, and international regulations when disposing of the product and packaging. Cleaned up material (post-detonation) may be considered hazardous waste. Do not use original containers for other means, unless all explosive markings and labels have been removed.					
Section 14: Transport Information:					
UN Number	UN Proper Shipping Name	Transport Hazard Class	Packing Group	Marine Pollutant	ERG Guide Number
UN0208	Trinitrophenylmethylnitramine	1.1D	II	No	112
<b>Special Precautions:</b>		Understand the hazards of transporting explosives. Follow DOT guidelines and review the Emergency Response Guide before driving. Never fight explosives fires. Following any accident, immediately notify First Responders of the cargo.			
Section 15 Regulatory Information:					
Chemical	TSCA	CAA	RCRA	CERCLA/SARA	
Tetryl	Yes	No	No	Yes	
Section 16 Other Information:					
Date of Last Revision: 4/1/2016					
<p><b>CAUTION:</b> High explosives are extremely dangerous. All explosives must be handled only by qualified personnel, who are experienced and highly trained in the use of and familiar with the hazards inherent in explosives. Tetryl must be handled with extreme caution. When explosives are detonated or destructively tested, all personnel must be protected from the effects of blast overpressure, fragments, and noise. All the post detonation fumes and dust to clear before entering. Follow all safety regulations and precautions when handling, storing, or using explosive material.</p> <p>The information contained herein is believed to be accurate and represents the best information currently available. Data is based on information obtained through numerous regulatory and scientific agencies; said material may change over time. Product users are advised to confirm in advance of need that information is current, applicable, and suited to the circumstance of use. This document should be used to supplement the end users own information, safety procedures and training. Buyer and user assume any and all risk, responsibility, and liability for any and all injury (including death), loss, or damage arising from usage.</p>					