



SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Mandelin Reagent Test # 6088		DATE: September 22, 2008	
PRODUCT NUMBER(S): 6088			
TRADE NAME: Mandelin Reagent Test # 6088 GENERAL USE: Methadone/Amphetamines Test CHEMICAL FAMILY: Vanadium / Sulfuric Acid PRODUCT DESCRIPTION: Yellow liquid and Odorless.			
MANUFACTURED FOR: Safariland LLC		DATE PREPARED: September 22, 2008 SUPERSEDES: November 14, 2003	
ADDRESS (NUMBER, STREET, P.O. BOX) 13386 International Parkway		TELEPHONE NUMBER FOR INFORMATION / Customer Service 904-741-5400	
(CITY, STATE AND ZIP CODE) Jacksonville, FL 32218		COUNTRY USA	
CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER			
			
		1-800-255-3924 01-813-248-0585 North America Toll Free International	

SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
Ammonium (Meta)Vanadate	<1	7803-55-6	232-261-3	(+T)	
Sulfuric Acid	>99	7664-93-9	231-639-5	(+C)	R35

Notes: Hazard symbols and risk phrases based on maximum listed concentration of each hazardous ingredient.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
 Highly corrosive liquid. Both liquid and vapors can cause serious damage to tissues. Avoid strong bases and organic compounds. Highly toxic vanadium salt.

POTENTIAL HEALTH EFFECTS

INHALATION:
 Inhalation of vapors may cause severe respiratory irritation, headache, and nausea. Chronic exposure may cause respiratory damage. Vanadium dust, mists, and fumes are highly toxic. Edema/pneumonia may result; this can be potentially fatal.

SKIN:
 Product is highly corrosive, and may seriously burn skin. Use proper gloves and clothing while working with product. Third degree burns can occur, with permanent scarring. Toxic vanadium may enter circulation through burns.

EYES:
 Liquid or vapor may cause severe burns and ulcerations. Use safety glasses; use of a face shield is advisable. Product can cause irreversible damage to eyes. Vanadium may enter circulation through burns/ulcerations.

INGESTION:
 Product is highly corrosive; ingestion can lead to severe injury, including death. Serious burning of stomach, esophageal tract, throat, and mouth may occur. Damage may be irreversible. Extreme pain will occur. Ingestion of vanadium may be life-threatening, due to enzyme inhibition. Weakness, tinnitus, headache, nausea, and vomiting may occur.

CARCINOGENICITY:
 NTP? **No** IARC MONOGRAPHS? **No** OSHA REGULATED? **No**
 CALIFORNIA, Prop.65? **No**

SECTION 4 - FIRST AID MEASURES

INHALATION:
 Place victim in well-ventilated area. If victim is not breathing, perform artificial respiration. Seek immediate medical attention.

EYES:
 Material can cause severe eye irritation and burns. Flush eyes with a large quantity of water for a minimum of 15 minutes, then seek immediate medical attention. Do not medicate with "over-the-counter" eye products.

SKIN:
 Product is corrosive and will damage skin and tissues. Use of appropriate gloves and thorough hand-washing with hand cleanser is required. Remove contaminated clothing and rinse thoroughly. If skin is damaged or severely irritated, seek medical help. Safety Showers are highly recommended for use of this product.

INGESTION:
 Product is highly corrosive; ingestion can lead to severe injury, including death. If victim is able to swallow, give water, then seek immediate medical help.

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SECTION 5 - FIRE FIGHTING MEASURES

GENERAL HAZARDS:
 Material is non-flammable, but heated material can generate corrosive vapors and extremely toxic fumes.

EXTINGUISHING MEDIA:
 N/A - product is non-flammable.

FIRE FIGHTING PROCEDURES:
 Water may be used to dilute and cool product to reduce the risk of toxic and corrosive vapors. Self-contained breathing apparatus is required.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
 Toxic vanadium and corrosive sulfur oxides fumes and/or vapors may form. Self-contained breathing apparatus and full chemical-resistant turn-out gear is required. Decontamination of fire-fighting gear may be needed.

HAZARDOUS COMBUSTION PRODUCTS:
 May produce fumes containing vanadium compounds, which are highly toxic. Self-contained breathing apparatus is required for fire-fighting purposes.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
 AVOID BREATHING VAPORS. Sequester leak or spill. Use sand or kaolin to absorb spill. Do not discharge into waterways or sewer systems. Treat absorbed material as a hazardous heavy metal waste. **DO NOT ADD WATER TO SPILL!!!**

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
 Store in cool, dry, place. Do not store with metals or combustible materials.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HAZARDOUS COMPONENTS	NIOSH				ACGIH		OSHA	
	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3	TLV/TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3
Ammonium (Meta)Vanadate	OSHA PEL as V2O5 - 0.5 mg/m3 (dust), 0.1 mg/m3 (fumes), ACGIH 0.05 mg/m3 dust or fumes					0.05		0.5/0.1
Sulfuric Acid		1			0.2		1	

PERSONAL PROTECTION

RESPIRATORY PROTECTION:
 Often not needed, as ampoules are small and used immediately. Use approved NIOSH respirator if TLV levels are exceeded. If product is not used immediately, wear a mist respirator.

PROTECTIVE GLOVES:
 Always wear protective gloves while working with product.

EYE PROTECTION:
 Safety glasses are required to prevent potential eye contact, irritation or injury.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:
 Wear appropriate protective clothing and boots as required to prevent skin contact. For field use, a rubber apron may be worn as additional protection.

WORK / HYGIENIC PRACTICES:
 Use good industrial hygiene. Work carefully with ampoules and always wear protective equipment.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR Yellow liquid and Odorless.	VAPOR PRESSURE Low
pH <1.0	SPECIFIC GRAVITY (WATER = 1) ~1.6-1.8 (Sulfuric Acid)
BOILING POINT / BOILING RANGE N/D	SOLUBILITY IN WATER Complete
FLASH POINT None	VISCOSITY N/D
FLAMMABLE LIMITS LEL: N/D UEL: N/D	VAPOR DENSITY (AIR = 1) ~3.4 for Sulfuric Acid
AUTO-IGNITION TEMPERATURE NE	EVAPORATION RATE (WATER = 1) N/D

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SECTION 10 - STABILITY AND REACTIVITY

STABILITY	STABLE	X	CONDITIONS TO AVOID: Extreme Heat (above 120°F), Moisture
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INCOMPATIBILITY (MATERIALS TO AVOID):
Alkalis, metals, halogenated salts (fluorides, chlorides, bromides, iodides, chlorates, perchlorates, etc.), organic compounds, water (will generate heat).

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
Vanadium compounds, sulfur compounds.

HAZARDOUS POLYMERIZATION: Will Not Occur.	CONDITIONS TO AVOID: None Related to Polymerization.
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SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Ammonium (Meta)Vanadate	7803-55-6	58.1 mg/kg (ORAL, RAT)	7.8 mg/m³ / 4 Hours (INHALATION, RAT)
	232-261-3		
Sulfuric Acid	7664-93-9	350 mg/kg (ORAL, RAT)	320 mg/m³ / 2 Hours (INHALATION, MOUSE)
	231-639-5		

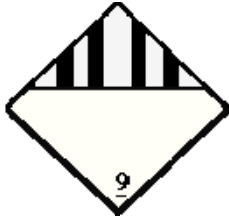
SECTION 12 - ECOLOGICAL INFORMATION

Very toxic to aquatic organisms. DO NOT RELEASE PRODUCT INTO ENVIRONMENT!!

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:
 Do not dispose into waterways or sewers. Waste is considered hazardous and must be stored and labeled as such; the user has the responsibility of compliance with federal, state, and local regulations concerning waste disposal. Obey federal, state, and local laws regarding storage of flammable wastes.

SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: Chemical Kit UN 3316	
DOT HAZARD CLASS / Pack Group: 9 / II REFERENCE: UN / NA IDENTIFICATION NUMBER 2922 LABEL: Miscellaneous Materials (9) HAZARD SYMBOLS:	IMDG HAZARD CLASS: 9 RID/ADR Dangerous Goods Code: UN TDG Class / Pack Group 9 / II Hazard Identification Number (HIN): 90 IATA HAZARD CLASS / Pack Group: 9 / III
	

Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

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SECTION 15 - REGULATORY INFORMATION

TSCA (USA - Toxic Substance Control Act): **Yes**
 SARA TITLE III (USA - Superfund Amendments and Reauthorization Act): **Yes - 302 and 313 (Sulfuric Acid)**

Acute Health: Yes	Chronic Health: Yes
Fire: No	Sudden Release of Pressure: No
Reactive: Yes	

313 REPORTABLE INGREDIENTS: **None** - **RCRA listed waste as P119**
 CERCLA (USA - Comprehensive Response Compensation and Liability Act): **Yes - Both Components**
 California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: **No**
 CCPR (Canadian Controlled Products Regulations): **Yes**
 CIDL (Canadian Ingredient Disclosure List): **Yes**
 CDSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List): **Referenced on CDSL.**
 EINECS (European Inventory of Existing Commercial Chemical Substances): **Referenced.**


WGK Water Quality Index: **2**

RISK PHRASES:	SYMBOL(S) REQUIRED FOR EU LABEL	SAFETY PHRASES:
<p>R39/26/28 : Very toxic: danger of very serious irreversible effects through inhalation and if swallowed.</p> <p>R35 : Causes severe burns.</p> <p>R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p>	 (+T)-TOXIC  (+C) - CORROSIVE	<p>S1/2 : Keep locked up and out of the reach of children.</p> <p>S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.</p> <p>S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</p> <p>S60 : This material and its container must be disposed of as hazardous waste.</p> <p>S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.</p>

SECTION 16 - OTHER INFORMATION

Legend			
N/A = Not Applicable		N/E = Not Established	
N/D = Not Determined		N/R = Not Reported	
HMIS HAZARD RATINGS	HEALTH: FLAMMABILITY: PHYSICAL HAZARD: PERSONAL PROTECTIVE EQUIPMENT:	4 0 3 B	0 = INSIGNIFICANT 1 = SLIGHT 2 = MODERATE 3 = HIGH 4 = EXTREME

REVISION SUMMARY:
 Revised 22 September 2008 for GHS purposes, Supersedes document from 26 September 2000. LB

<p>MSDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com</p>	
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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.