

**MATERIAL SAFETY DATA SHEET**

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TITAN INDUSTRIAL CHEMICALS LLC, GROVER, MO630 EMERGENCY PHONE: (877) 273-9030

EFFECTIVE DATE: 3-8-08

PRODUCT CODE: 408

PRODUCT NAME: "ELECTRO SOL"

MSD: 408-1

HAZARDOUS INGREDIENTS (TYPICAL VALUES -- NOT SPECIFICATION)

HYDROTREATED HEAVY NAPHTHA; CAS #64742-48-9; ACGIH TWA 100PPM, 525MG/m3.  
METHYLENE CHLORIDE; CAS #75-09-2; ACGIH TWA 50ppm, 174mg/m3; OSHA TWA  
500ppm, 1000ppm C.

**Section 1**

Boiling Point: 300-390 deg.F  
Vap. Press. (mmHg @ 25°C): 14.5  
Vap. Density (Air = 1): 4.00  
pH: NOT DETERMINED

**Physical Data**

Sol. In Water: NEGLIGIBLE  
Sp. Gravity (@25/25°C): .8920  
% Volatile by Volume: 100.0  
EVAP. RATE (ETHYL ETHER=1): <1  
Appearance and Odor: CLEAR, COLORLESS LIQUID. MILDLY SWEET HYDROCARBON ODOR.

**Section 2**

Flash Point: 130 deg.F  
Method Used: T.C.C.  
Extinguishing Media: WATER, FOG, FOAM, DRY CHEMICAL, OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE RE-IGNITED ON SURFACE OF WATER.  
Special Fire Fighting Equipment and Hazards: EVACUATE HAZARD AREA OF PERSONNEL. WEAR PROPER PROTECTIVE CLOTHING INCLUDING A NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE-EXPOSED CONTAINERS WITH WATER.

**Fire and Explosion Hazard Data**

Flammable Limits:  
LEL (% Vol): 1.0 UEL (% Vol): 6.0

**Section 3**

Stability: STABLE  
Incompatibility: HEAT, FLAME, SPARKS, STRONG OXIDIZING AGENTS, STRONG ALKALIES, OXYGEN, NITROGEN PEROXIDE, SODIUM, POTASSIUM AND REACTIVE METALS.  
Hazardous Decomposition Products: CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION. ALSO, HYDROGEN CHLORIDE, PHOSGENE, CHLORINE.  
Hazardous Polymerization: WILL NOT OCCUR.

**Reactivity Data**

**Section 4**

Action to be taken for Spills (Use Appropriate Safety Equipment): WARNING: COMBUSTIBLE. ELIMINATE ALL SOURCES OF IGNITION. HANDLING EQUIPMENT MUST BE GROUNDED TO PREVENT SPARKING. SOAK UP WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER INERT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.  
Disposal Method: PLACE IN A DISPOSAL FACILITY APPROVED UNDER RCRA REGULATIONS FOR HAZARDOUS WASTE. CONSULT FEDERAL, STATE AND LOCAL REGULATIONS. THIS PRODUCT IS AN "OIL" AND CONTAINS A HAZARDOUS SUBSTANCE UNDER THE CLEAN WATER ACT. KEEP OUT OF SURFACE WATERS AND ANY WATER COURSES OR SEWERS ENTERING OR LEADING TO SURFACE WATERS. HAZARDOUS WASTE NO. D001, IGNITABLE HAZARDOUS WASTE. METHYLENE CHLORIDE HAZARDOUS WASTE NO. U080.

**Spill, Leakage, and Disposal Procedures**

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**Section 5**

**Health Hazard Data -- Effect of Overexposure**

Ingestion:MAY RESULT IN VOMITING; ASPIRATION OF VOMITUS INTO THE LUNGS MUST BE AVOIDED AS EVEN SMALL QUANTITIES IN THE LUNGS MAY RESULT IN CHEMICAL PNEUMONITUS AND PULMONARY EDEMA/HEMORRHAGE.

Eye Contact:SHORT-TERM LIQUID CONTACT MAY BE MILDLY IRRITATING. PROLONGED OR REPEATED CONTACT MAY BE MORE IRRITATING. VAPORS MAY BE MILDLY IRRITATING TO EYES.

Skin Contact:PROLONGED OR REPEATED CONTACT MAY CAUSE DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS. PROLONGED CONTACT OR CONFINED CONTACT WITH SKIN (SUCH AS INSIDE A GLOVE) CAN CAUSE PAINFUL IRRITATION.

Skin Absorption:MAY OCCUR IF CONTACT WITH LIQUID IS PROLONGED.

Inhalation:HIGH CONCENTRATIONS OR PROLONGED EXPOSURE TO LOWER CONCENTRATIONS MAY CAUSE IRRITATION TO MUCOUS MEMBRANES, DIZZINESS, NAUSEA, HEADACHE, VOMITING.

**Section 6**

**First Aid**

Eyes:FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING UPPER AND LOWER EYELIDS OPEN. GET MEDICAL ATTENTION.

Skin:WASH WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND SHOES AND LAUNDRER BEFORE RE-USE. IF IRRITATION IS EVIDENT GET MEDICAL ATTENTION.

Inhalation:MOVE PERSON TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

Ingestion:DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF MATERIAL INTO LUNGS. GET MEDICAL ATTENTION IMMEDIATELY.

**SUPPLEMENTAL HEALTH INFORMATION (ACUTE TOXICITY DATA):**

Eyes:NOT AVAILABLE

Skin:

Respiratory:

Oral:IF MORE THAN 2ml. PER KG. HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE WITH A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

Systemic:CONSUMPTION OF ALCOHOLIC BEVERAGES AND SMOKING MAY INCREASE THE POTENTIAL FOR DEVELOPMENT OF TOXIC EFFECTS. ALCOHOLISM, ACUTE AND CHRONIC LIVER AND KIDNEY DISEASE, ANEMIA, CORONARY DISEASE AND RHYTHM DISORDERS OF THE HEART MAY BE AGGRAVATED BY EXPOSURE.

CARCINOGENICITY: NTP: YES- IARC: YES-METHYLENE CHLORIDE OSHA REGULATED?: YES  
METHYLENE CHLORIDE

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**Section 7**

**Special Handling Information**

Ventilation:GOOD ROOM VENTILATION IS ADEQUATE. DO NOT USE IN CONFINED, NON-VENTILATED AREAS.

Respiratory Protection:NONE REQUIRED FOR INTENDED USE OF PRODUCT. IF TLV IS TO BE EXCEEDED USE ORGANIC VAPOR RESPIRATOR OR NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS.

Protective Clothing:WEAR IMPERVIOUS GLOVES AND CLOTHING AS NECESSARY TO AVOID SKIN CONTACT.

Eye Protection:WEAR CHEMICAL SPLASH GOGGLES.

**Section 8**

**Special Precautions and Additional Information**

Precautions to be Taken in Handling and Storage:KEEP AWAY FROM HEAT, SPARKS, OPEN FLAME. KEEP CONTAINERS TIGHTLY CLOSED. STORE AWAY FROM STRONG OXIDIZING AGENTS IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. TREAT EMPTY CONTAINERS AS IF THEY WERE FULL DUE TO PRESENCE OF PRODUCT RESIDUE.

Additional Information: HMIS...2,2,1,C

**SECTION 9**

**D.O.T. SHIPPING INFORMATION**

PROPER SHIPPING NAME:TOXIC LIQUID,ORGANIC,NOS, (CONTAINS DICHLOROMETHANE), HAZARD CLASS:6.1

LABEL REQUIREMENTS:KEEP AWAY FROM FOOD DIAMOND

EMERGENCY RESPONSE GUIDE NO.:55

ID NO.:UN 2810

**SECTION 10**

**ENVIRONMENTAL INFORMATION**

RCRA WASTE NO.: D001, U080

REPORTABLE QUANTITY (CERCLA):1000# METHYLENE CHLORIDE

NFPA: 2,2,1

THRESHOLD PLANNING QUANTITY: NONE

SARA TITLE III, SEC. 313:METHYLENE CHLORIDE >.1%

CONSULT TITAN INDUSTRIAL CHEMICALS LLC. FOR FURTHER INFORMATION.

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