MATERIAL SAFETY DATA SHEET

W-Super Reactivator Mixture

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Manufacturer's Name

Address

Telephone Number for Information

Date Prepared Product Class

Western Stamp & Engraving Co. 7724 Burnet Ave., Van Nuys, CA 91405

800-820-5014 April 13, 1999

A Mixture of Propylene & Ethylene Glycol Monobutyl Ether and 2-Methoxy-1-Propanol

Identity: (As Used on Label and List)

W-Super Reactivator

SECTION I - MANUFACTURER'S INFORMATION

Western Stamp & Engraving Co.

7724 Burnet Ave., Van Nuys, CA 91405-1007

Telephone Numbers: (800) 820-5014 (818) 787-3308

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components
Propylene Glycol Monomethyl Ether CAS# 000107-98-2
Ethylene Glycol Monobutyl Ether CAS# 111-76-2

2-Methoxy-1-propanol CAS# 1589~7-5

OSHA(PEL) 100 ppm

25 ppm

100 ppm

ACGIH (TLV) 100 ppm 150 S

25 ppm

100 ppm

150 STEL Skin

150 STEL

H-2 F-3 R-0

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point 240°F-350°F

Vapor Pressure (mm Hg.) Approx. 12 mm at 77°F

Vapor Density (AIR = 1) > 1 Specific Gravity (H2O = 1) < 1

pH N/A

Melting Point N/A

Evaporation Rate (Butyl Acetate = 1) < 1

Solubility in Water Complete

Appearance and Odor Clear liquid with objectionable odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used) <100°F

SHIPPER CLASSIFICATION - UN #1210

Flammable Limits LEL Not Established UEL Not Established

Extinguishing Media

All purpose foam for large fires. Co2, dry chemical, and waterfog for small fires.

Special Fire Fighting Procedures

Self-contained breathing apparatus, protective clothing, water spray to cool fire exposed containers and structures and to disperse vapors.

Unusual Fire and Explosion Hazards

Vapors may ignite explosively and spread long distances. Material is flammable. Keep away from heat and open flame. Keep containers closed. Exposure of closed containers to excessive heat may cause disruptive pressure. This material may produce a floating fire hazard in extreme fire conditions.

SECTION V - REACTIVITY DATA

Stability: Unstable Stable X

- 1. Under normal storage conditions
- Conditions to avoid: rate of deterioration increases with increasing temperature and time. Avoid exposure to heat.

W-Super Reactivator Mixture

Conditions to avoid:

Elevated temperatures. Vapors can form flammable mixtures at ordinary temperatures. Static electricity may accumulate and create a fire ignition hazard. Move container from fire area if possible. See also Section VII Special precautions to be taken in handling and storage'. Vapors are heavier than air and may travel a considerable distance where they may linger and/or find an ignition source and flash back. Stay upwind; keep out of low areas.

Incompatibility (Materials to avoid)

Avoid strong alkali 'caustic' at high temperature. Avoid acid and strong oxidizing agents. Do not distill to dryness at any temperature in the presence of strong base, acid or strong oxidizing agents. Strongly exothermic decompositions may occur under such conditions. Chemical processing operations involving glycol ethers with strong bases, acids or strong oxidizing agents should be carefully reviewed for safety and stability.

Hazardous Decomposition or By-products

Burning can produce carbon monoxide and/or carbon dioxide. Carbon monoxide is highly toxic if inhaled. Carbon dioxide in sufficient concentrations can act as an asphyxiant.

Hazardous Polymerization: Will Occur Will Not Occur X

Conditions to Avoid: None

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY: Inhalation? X Skin? X Eyes? X Ingestion? Not Likely

Carcinogenicity: NTP?? No IARC Monographs? No OSHA Regulated? No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Pre-existing skin, eye and respiratory conditions

OTHER HEALTH HAZARDS: EFFECTS OF EXPOSURE

INHALATION

High concentrations are irritating to the eyes and respiratory tract. May cause headache, dizziness, nausea, vomiting and malaise.

EYES

Can cause severe irritation and pain, seen as excess tearing and blinking with marked excess redness and swelling of the conjunctive.

SKIN

Brief contact with undiluted material may cause slight reddening. More prolonged and widespread contact, as from clothing wetted with the undiluted material, may cause moderate reddening, swelling and possible necrosis.

SKIN ABSORPTION

Penetrates skin readily. Frequent or widespread contact may result in the absorption of potentially harmful amounts of material. Signs and symptoms of toxicity are similar to those of swallowing. Prolonged skin contact with very large amounts may cause drowsiness.

INGESTION

Moderately toxic. May cause headache, dizziness, incoordination, nausea, vomiting, diarrhea and general weakness. Ingestion of significant quantities may result in red blood cell hemolysis.

EFFECTS OF REPEATED OVEREXPOSURE

Signs and symptoms of excessive exposure may be anesthetic or narcotic effects.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION

Observations in animals of overexposure to Glycolethers include hemoliytic anemia, liver and kidney effects.

Emergency and First Aid Procedures

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

EYES: Immediately flush eyes with large amounts of running water for at 15 minutes. Hold eyelids apart while Flushing to rinse entire surface of eye and lids with water. Obtain medical attention.

SKIN: Immediately remove contaminated clothing and shoes. Under a safety shower, flush skin thoroughly with large amounts of running water for at least 15 minutes. Do not attempt to neutralize with chemical agents. Discard or decontaminate clothing and shoes before reuse. If irritation develops, get medical attention.

INGESTION

If patient is conscious and has a gag reflex, give two glasses of water. Induce vomiting. Obtain medical attention.

NOTE TO PHYSICIAN

No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

W-Super Reactivator Mixture

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled

Keep unnecessary people away; isolate hazard area and deny unnecessary entry. Keep out of sewers, storm drains, surface waters and soil. Vapor explosion hazard indoors, outdoors or in sewers. In case of large spills, warn public of downwind explosion hazard. Remove all possible ignition sources; like cigarettes, flames, pilot lights, electrical sources, etc. Pump up (with appropriate explosion-proof equipment) or soak up with sand or other absorbent. Application of vapor suppression foams may be appropriate. Check area with approved explosion meter before re-entering area. Ground and bond all containers and handling equipment. Under some conditions of use, application of clay or cellulose based absorbents on spills of this material may result in the generation of flammable vapors since there is a heat of absorption and a high surface area.

Waste Disposal Method

Follow Federal, State and Local regulations. Do not discharge into waterways or sewer systems.

Hazardous Waste 40 CFR 261: Yes Ignitable liquid

Hazardous Waste Number: D001

Hazardous Substance (49 CFR Cercla List) Reportable Quantity 1 lbs.

Precautions to be Taken in Handling or Storing

Seal containers when not in use. Do not store near heat and open flame. To maintain product quality store in cool, dark, dry area. Minimize exposure to air. Store away from heat and light. Keep from contact with oxidizing materials. Since emptied containers retain product residue, follow label warnings even after container is emptied. Conditions to avoid: Rate of deterioration increases with increasing temperature and time. Avoid exposure to heat. Use oldest material first.

Other Precautions

Ground container when discharging.

SECTION VIII - CONTROL MEASURES

Respiratory Protection (Specify Type) NIOSH/MESA approved organic vapor respirator. Respirator must be worn if exposure is likely to exceed recommended exposure limits.

Ventilation: Local Exhaust

Recommended if airborne levels exceed recommended exposure limits.

Use explosion proof ventilation equipment.

Mechanical (General)

Good ventilation (typically 10 air changes per hour) should be used.

Ventilation rates should

be matched to conditions. Use explosion proof ventilation equipment.

Other None

Other Protective Clothing or Equipment

Safety goggles, face shield, general purpose rubber gloves, protective clothing, protective foot wear, eye fountain and shower.

Work/Hygienic Practices

Standard good Hygiene should always be practiced.

SECTION IX - REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS

FEDERAL EPA

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III Sec. 311/312 Listed: Hazardous classifications: immediate (acute) health hazard, delayed (chronic) health hazard, fire hazard. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III Sec. 313 and 40 CFR Part 372: Listed: Glycol Ethers 100%

SHIPPER CLASSIFICATION: UN#1210