MATERIAL SAFETY DATA SHEET

CONFIDENTIAL

Section I:

Manufactures Name: Welling Chemical Company
Address: 2008 Westport Ave., Box 409, Sioux Falls, SD 57117-0409
Phone #: 605-336-6710
Date Prepared: 1/15/86
Product Identity: CWB-8
Synonyms: Boiler water treatment

Section II: Hazardous Ingredients/Identity Information

Hazardous Components	OSHAPEL	ACGIH-TLV	Flammability	LEL	UEL
Sodium Di-chromate	0.5mg/m^3	0.05mg/m^3	NA(0)	NA	NA
Sodium Hydroxide	2mg/m^3	2mg/m^3	NA (0)	NA	NA
Trade Secrets	Does not contribute to toxicity or flammability				
Morpholine	70mg/m^3 skin	70mg/m^3 skin	3	1.4%	11.2%

Other Cited Data: Certain chromium compounds have caused cancer in lab animals(NTP and IARC.)

Comments: Alkaline material. Corrosive.

Section III: Physical/Chemical Characteristics

Boiling Point: Approx. 100° C Specific Gravity (H_2O = 1): 1.145
Vapor Pressure: (WATER) Melting Point: 18°F
pH: 13-14 Evaporation Rate (Butyl acetate = 1): < 1
Appearance and odor: Orange liquid, amine odor

Section IV: Fire and Explosion Data

Flash Point: 88°F for 100% morpholine. This product is an aqueous sol.
Extinguishing Media: Water, CO_2, foam, dry chemical
Special Fire Fighting Procedures: Wear a self contained breathing apparatus.

Unusual Fire and Explosion Hazards: Vapors emitted when involved in a fire are alkaline and flammable in high concentrations are reached.

Section V: Reactivity Data

Stability: Stable: Yes Unstable: No
Conditions to avoid: Avoid contact

Incompatability: Acids, reducing agents, alkali incompatables, Al, Zn, Sn.

Hazardous Decomposition or By Products Oxides of nitrogen, oxides of carbon

Hazardous Polymerization: Will Occur -, Will Not Occur +

Section VI: Health Hazard Data

Routes of Entry: Inhalation + Skin + Ingestion +

Health Hazards (Acute and Chronic) Skin: May cause burns,irritation. Eyes: Eye damage burns. Inhalation:Vapor is corrosive

Carcinogenicity: NTP Yes IARC Yes

OSHA Regulated ~~Lacking more specific data~~ Other
Certain chromium compounds have caused cancer in lab animals.

Signs and Symptoms of Exposure: Eyes: Impaired vision,burns. Skin: Burns, irritation,rash. Inhalation: Mucous membrane irritation.Dizziness. Ingestion: Toxic material.

Medical Conditions Aggravated by Exposure: ~~Vapors may aggravate a respiratory~~ condition.

Emergency and First Aid Procedures: ~~Eyes: Immediately flush with flowing water.~~ Seek medical attention. Skin: Flush from skin with plenty of water. Remove contaminated clothing. Launder before reuse. Inhalation: Remove to fresh air. Ingestion: Call a physician immediately.

Section VII: Precautions for Safe Handling and Use.

Steps to be taken in case material is released or spilled: Soak up on inert material (wear safety gear), sweep shovel into labled empty drums. This product contains Dichromate . Usually this product will have to be treated with a reducing agent(sodium bisufite) to reduce chromium to trivalent, and then pH adjusted with soda ash or lime to precipatate chromium hydroxide. Contact local or state authorities for advice. Do not allow this product to enter natural waters.

Waste Disposal Method Follow Federal, State, and local regulations.

Precautions to be taken in handling and storing: Avoid contact and spillage.

Other precautions: Wear safety gear.

Section VIII: Control Measures

Respiratory Protection: NIOSH approved for vapors or mists above TLV's. (Organic vapor type)

Ventilation: Local Exhaust Yes Special No
Mechanical (Type) Vent. fan Other No

Protective Gloves Rubber Eye Protection Goggles
Other Eye wash, Impervious clothing

Comments: Use good safe practice and personal hygiene when useing this product.

References Used:

Third Annual Report on Carcinogens
NTIS
Research Triangle Park, NC

Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids (1984)
NFPA
Batterymarch Park, Quincy, MA 02269

OSHA Safety and Health Standards
(29 CFR 1910) OSHA 2206
U.S. Dept. of Labor
Washington, D.C. 20402

Threshold Limit Values and Biological Exposure Indices For 1985-86
ACGIH, Cincinnati, OH 45211