MATERIAL SAFETY DATA SHEET

CHEMCO INDUSTRIES, INC. 5731 Manchester Ave., St. Louis, MO 63110



GENERAL INFORMATION #: 314-647-1888 EMERGENCY TELEPHONE #: (800) 854-4236

I-PRODUCT IDENTIFICATION

PH PLUS

PRODUCT CODE:

CHEMICAL FORMULATION:

NFPA HAZARD IDENTIFICATION SYSTEM: HEALTH: FLAMMABILITY: REACTIVITY:

PERSONAL PROTECTION-B

HAZARD RATING: 4-Extreme; 3-High; 2-Moderate; 1-Slight; 0-Insignificant

II-HAZARDOUS INGREDIENTS

HAZARDOUS CAS WT. % EC. NO. EC CLASS

SODIUM CARBONATE 497-19-8 99.8 207-838-8 Xi, R36

Key: PEL: Permissible Exposure Limit TLV: Threshold Limit Value C: Ceiling Level STEL: Short Term Exposure Limit

N/A: Not Applicable N/D: Not Determined N/E: Not Established Y: Yes N: No 302: CERCLA List of Hazardous Substances and Reportable Quantities (40 CFR 302.4)

355: SARA TITLE III / List of Extremely Hazardous Substances for Emergency Planning and Notification (40 CFR 355).

372: SARA TITLE III / List of Toxic Chemicals subject to Release Reporting (Community Right to Know) (40CFR 372).

III-PHYSICAL DATA

ODOR: ODORLESS

APPEARANCE: WHITE, GRANULAR SOLID **AUTOIGNITION TEMPERATURE**: N/A

BOILING POINT: DECOMPOSES **COEFFICIENT OF OIL/WATER**: N/A

DENSITY/WEIGHT PER VOLUME: (g/ml)DENSE GRADES=0.86-1.12;LIGHT GRADES=0.70-0.90

EVAPORATION RATE: NO APPLICABLE (Butyl Acetate =1)

FREEZING POINT: 851°C(1564°F) **ODOR THRESHOLD**: N/A **OXIDIZING PRO**PERTIES: N/A **PERCENT VOLITILE**: N/A

SPECIFIC GRAVITY: 2.509(water=1) SOLUBILITY IN WATER: 33.2% MAXIMUM

VAPOR DENSITY: N/A VAPOR PRESSURE: N/A

IV-FIRE AND EXPLOSION HAZARD

FLASH POINT (°F): NON-COMBUSTIBLE

FLAMMABLE LIMITS: N/A

EXTINGUISHING MEDIA: WATER, WATER FOG, CARBON DIOXIDE (CO2), DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES: WEAR FULL PROTECTIVE CLOTHING AND SELF CONTAINED

BREATHING APPARATUS

UNUSUAL FIRE AND EXPLOSION HAZARD: FUMES OF SODIUM OXIDE

V-REACTIVITY DATA

STABILITY: STABLE

INCOMPATIBILITY: REACTS WITH ACIDS WITH RELEASE OF LARGE

VOLUMES PF CARBPM DIOXIDE GAS AND HEAT.

CONDITIONS TO AVOID: CONTACT WITH ACIDS EXCEPT UNDER

CONTROLLED CONDITIONS.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: HEATED TO DECOMPOSITION, IT EMITS FUMES OF

SODIUM OXIDE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: ALUMINUM POWDER, ACIDS, FLOURINE, MOLTEN

LITHIUM

VI-HEALTH AND HAZARD DATA

POTENTIAL HEALTH EFFECTS: DIRECT CONTACT WITH PRODUCT CAUSES IRRITATION OF THE EYES AND CONTINUOUS CONTACT MAY CAUSE SKIN IRRITATION (RED, DRY, CRACKED SKIN). EXCESSIVE LEVELS OF AIRBORNE DUST MAY IRRITATE THE MUCOUSE MEMBRANES AND UPPER RESPIRATORY TRACT.

EMERGENCY AND FIRST AID PROCEDURES

IF IN EYES: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES, LIFTING THE UPPER AND LOWER EYELIDS INTERMITTENTLY. SEE A MEDICAL DOCTOR OR OPHTHALMOLOGIST AS NECESSARY.

IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION OCCURS AND PERSISTS.

IF INHALED: REMOVE TO FRESH AIR. IF BREATHING DIFFICULTY OR DISCOMFORT OCCURS AND PERSISTS, OBTAIN MEDICAL ATTENTION

IF INGESTED: RINSE MOUTH WITH WATER. DILUTE BY GIVING 1 OR 2 GLASSES OF WATER. DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEE A MEDICAL DOCTOR IMMEDIATELY.

NOTE TO MEDICAL DOCTOR: WHILE INTERNAL TOXICITY IS LOW, IRRITANT EFFECTS OF HIGH CONCENTRATIONS MAY PRODUCE CORNEL OPACITIES, AND VESICULAR SKIN REACTIONS IN HUMANS WITH ABRADED SKIN ONLY. TREATMENT IS SYMPTOMATIC AND SUPPORTIVE.

VII-SPILL AND LEAK PROTECTION

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: THIS PRODUCT IF SPILLED, CAN BE RECOVERED AND RE-USED IF CONTAMINATION DOES NOT PRESENT A PROBLEM. VACUUM OR SWEEP UP THE MATERIAL. IF THE SPILLED PRODUCT IS UNUSABLE DUE TO CONTAMINATION. CONSULT STATE OR FEDERAL ENVIRONMENTAL AGENCIES FOR ACCEPTABLE DISPOSAL PROCEDURES AND LOCATIONS.

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

VIII - SPECIAL PROTECTION INFORMATION

VENTILATION: WHERE POSSIBLE PROVIDE GENERAL MECHANICAL AND/OR LOCAL EXHAUST VENTILATION TO PREVENT RELEASE OF AIRBORNE DUST INTO THE WORK ENVIRONMENT

RESPIRATORY PROTECTION: WHENEVER DUST IN THE WORKER'S BREATHING ZONE CANNOT BE CONTROLLED WITH VENTILATION OR OTHER ENGINEERING MEANS, WORKERS SHOULD WEAR RESPIRATORS OR DUST MASKS APPROVED BY NIOSH.MSHA,EU,CEN OR COMPARABLE CERTIFICATION ORGANIZATION TO PROTECT THEM AGAINST AIRBORNE DUST.

EYES AND FACE: APPROPRIATE EYE AND FACE PROTECTION EQUIPMENT (ANSI Z87 APPROVED) SHOULD BE SELECTED FOR THE PARTICULAR USE INTENDED FOR THIS MATERIAL. SAFETY GLASSES WITH SIDE SHIELDS ARE RECOMMENDED.

PROTECTIVE CLOTHING: DRY PRODUCT IS GENERALLY NON-IRRITATING TO INTACT SKIN. HOWEVER THIS PRODUCT CAN BE IRRITATING WHERE SKIN HAS BEEN DAMAGED AND CAN CREATE SKIN IRRITATION AFTER LONG EXPOSURES WHEN MOISTURE IS PRESENT. UNDER SUCH CONDITIONS, GLOVES AND LONG SLEEVED CLOTHING ARE RECOMMENDED TO MINIMIZE SKIN CONTACT.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: USE AIR CONVEYING/MECHANICAL SYSTEMS FOR BULK TRANSFER TO STORAGE. FOR MANUAL HANDLING OR BULK TRANSFER USE MECHNICAL VENTILATION TO REMOVE AIRBORNE DUST FROM RAIL CAR, SHIP OR TRUCK. KEEP MATERIAL OUT OF LAKES, STREAMS, PONDS AND SEWER DRAINS. STORE IN COOL DRY AREA AWAY FROM ACIDS.

REVISION DATE: January 05, 2006

Prepared By:

DATE OF ISSUE: January 05, 2006