

MATERIAL SAFETY DATA SHEET

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GENERAL INFORMATION # : 314-647-1888
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I-PRODUCT IDENTIFICATION

PH MINUS

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

INGREDIENT CAS NUMBER	MAX % W/W	EPCRA 312	APPLIES 313	AIR	CONTAMINANT	LEVELS
				TWA/TLV (ppm)	STEL (ppm)	CEIL (ppm)
SODIUM BISULFATE MONOSODIUM SULFATE CAS# 7681-38-1)	94.5	Y	N	PARTICULATES NOT OTHERWISE REGULATED TOTAL TWA 15mg/m ³ OSHA TOTAL TLV 10mg/m ³ ACGIH RESPIRABLE TWA 5 mg/m ³ OSHA		
SODIUM SULFATE DISODIUM SULFATE CAS# 7757-82-6	5.0	Y	N	PARTICULATES NOT OTHERWISE REGULATED TOTAL TWA 15mg/m ³ OSHA TOTAL TLV 10mg/m ³ ACGIH RESPIRABLE TWA 5 mg/m ³ OSHA		

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: N/A

COEFFICIENT OF OIL/WATER: N/A

DENSITY/WEIGHT PER VOLUME: 0.88 g/ML

EVAPORATION RATE: NO APPLICABLE (Butyl Acetate =1)

MELTING POINT: DECOMPOSES

pH: 8.3 (1% SOLUTION)

ODOR THRESHOLD: N/A

PERCENT VOLITILE: N/A

OXIDIZING PROPERTIES: N/A

SOLUBILITY IN WATER: % BY WT. @ 20°C(68°F): 9.0

VAPOR PRESSURE: N/A

VAPOR DENSITY: N/A

SPECIFIC GRAVITY: 2.20(water=1)

IV-FIRE AND EXPLOSION HAZARD

FLASH POINT (°F): N/A

FLAMMABLE LIMITS: N/A

EXTINGUISHING MEDIA: WATER SPRAY DRY CHEMICAL MEDICA APPROPRIATE FOR SURROUNDING FIRE

SPECIAL FIRE FIGHTING PROCEDURES: PREVENT HUMAN EXPOSURE TO FIRE, FUMES, SMOKE, AND PRODUCTS OF COMBUSTION. EVACUATE NON-ESSENTIAL PERSONNEL. FIREFIGHTERS SHOULD WEAR FULL FACE, SELF CONTAINED BREATHING APPARATUS AND IMPERVIOUS PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARD: TOXIC FUMES MAY BE RELEASED

V-REACTIVITY DATA

STABILITY: STABLE

INCOMPATIBILITY: REACTS WITH ACIDS TO RELEASE CARBON DIOXIDE GAS AND HEAT.

CONDITIONS TO AVOID: CONTACT WITH ACIDS EXCEPT UNDER CONTROLLED CONDITIONS.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: NONE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

VI-HEALTH AND HAZARD DATA

PRIMARY ROUTES OF ENTRY: SKIN, INHALATION**POTENTIAL EFFECTS OF EXPOSURE****EYES:** EYE CONTACT WITH PRODUCT MAY CAUSE IRRITATION, BURNS**SKIN:** SKIN CONTACT MAY CAUSE IRRITATION, BURNS**INGESTION:** MAY CAUSE IRRITATION PAIN NAUSEA VOMITING DIARRHEA, BURNS**INHALATION:** INHALATION MAY CAUSE IRRITATION BURNING SENSATION**TARGET ORGANS:** OVEREXPOSURE MAY CAUSE DAMAGE TO DISORDERS OF, OR ADVERSELY AFFECT THE FOLLOWING SYSTEMS, FUNCTIONS, ORGANS: NONE CURRENTLY KNOWN**FIRST AID MEASURES****EYES:** IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, WHILE HOLDING EYELIDS APART TO ENSURE FLUSHING OF ENTIRE SURFACE. CALL A PHYSICIAN**SKIN:** IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. THOROUGHLY CLEAN CLOTHING AND SHOES BEFORE REUSE. CALL A PHYSICIAN**INGESTION:** DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER. DILUTE STOMACH CONTENTS BY DRINKING WATER. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT BREATHING VOMIT INTO LUNGS. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. CALL A PHYSICIAN IMMEDIATELY.**INHALATION:** REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH TO MOUTH. IF BREATHING IS DIFFICULT GIVE OXYGEN. CALL A PHYSICIAN.

VII-SPILL AND LEAK PROTECTION

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: EVACUATE NON-ESSENTIAL PERSONNEL, ELIMINATE IGNITION SOURCES, AND WEAR PROTECTIVE EQUIPMENT. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. CONTAIN SPILL. RECOVER FREE PRODUCT. TO CLEAN UP RESIDUE, FLUSH SPARINGLY WITH WATER OR USE AN ABSORBENT. AVOID RUNOFF TO GROUND WATER, SURFACE WATERS, AND SEWERS. IT MAY BE NECESSARY TO REMOVE CONTAMINATED SOIL. IF PRODUCT IS FLAMMABLE OR COMBUSTIBLE, USE NON SPARKING TOOLS. IF ACIDITY (LOW pH) IS A PROBLEM, NEUTRALIZE WITH HYDRATED LIME, SODA ASH, OR SODIUM BICARBONATE. IF ALKALINITY (HIGH pH) IS A PROBLEM NEUTRALIZE WITH DILUTE ACETIC ACID OR DILUTE HYDROCHLORIC (MURIATIC) ACID. IF REQUIRED, NOTIFY STATE AND LOCAL AUTHORITIES.**WASTE DISPOSAL METHOD:** SOLIDS MUST BE DISPOSED OF IN A PERMITTED WASTE MANAGEMENT FACILITY. RECOVERED LIQUIDS MAY BE REPROCESSED OR INCINERATED. INCINERATION MUST BE HANDLED IN A PERMITTED FACILITY. DISPOSE OF MATERIAL IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. LOCAL REGULATIONS MAY BE MORE STRINGENT THAN FEDERAL OR STATE.

VIII – SPECIAL PROTECTION INFORMATION

VENTILATION: ADEQUATE VENTILATION IS REQUIRED TO MINIMIZE EXPOSURE OR TO MAINTAIN EXPOSURE LEVELS BELOW OSHA/ACGIH REQUIREMENTS. LOCAL MECHANICAL VENTILATION MAY BE REQUIRED.**RESPIRATORY PROTECTION:** RESPIRATORY PROTECTOR PROGRAMS MUST BE IN COMPLIANCE WITH OSHA REQUIREMENTS IN 29 CFR 1910.134. FOR EMERGENCIES, A NIOSH/MSHA APPROVED POSITIVE PRESSURE BREATHING APPARATUS SHOULD BE READILY AVAILABLE.**EYES AND FACE:** SAFETY GLASSES WITH SIDE SHIELD GOGGLES. ALWAYS WEAR EYE PROTECTION WHEN WORKING WITH CHEMICALS. DO NOT WEAR CONTACT LENSES WHEN WORKING WITH CHEMICALS**PROTECTIVE CLOTHING:** IF EXPOSURE LIMITS ARE EXCEEDED, OR IF EXPOSURE MAY OCCUR, USE A NIOSH/MSHA RESPIRATOR APPROVED FOR YOUR CONDITIONS OR EXPOSURE. REFER TO THE MOST RECENT NIOSH PUBLICATIONS CONCERNING CHEMICAL HAZARDS, OR CONSULT YOUR SAFETY EQUIPMENT SUPPLIER.**ADDITIONAL PROTECTIVE MEASURES:** SAFETY SHOWER, EYE WASH FOUNTAIN, AND WASHING FACILITIES SHOULD BE READILY AVAILABLE**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** KEEP AWAY FROM ACIDS. FOR INDUSTRIAL USE ONLY. ATTENTION: THIS CONTAINER IS HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINER CONTAINS PRODUCT RESIDUES (VAPOR OR LIQUID), ALL LABELED HAZARD PRECAUTIONS MUST BE OBSERVED. KEEP CONTAINER CLOSED WHEN NOT IN USE. STORE IN A COOL DRY PLACE. KEEP OUT OF REACH OF CHILDREN.