MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY INFORMATION

Armand Products Company
469 North Harrison Street
Princeton, New Jersey 08543-5297

24 HOUR EMERGENCY TELEPHONE:	**1-800-733-3665 or 1-972-404-3228 (U.S.); 32.3.575.55.55 (Europe); 1800-033-111 (Australia)**
TO REQUEST AN MSDS:	**MSDS@oxy.com or 1-972-404-3245**
CUSTOMER SERVICE:	**1-800-522-0540 or 1-609-683-5900**

MSDS NUMBER: M25047

SUBSTANCE: POTASSIUM BICARBONATE (ANHYDROUS ALL GRADES)

TRADE NAMES:
Potassium Bicarbonate USP; ACS and Technical Grades

SYNONYMS:
Potassium acid carbonate; Carbonic acid, monopotassium salt; Pot bicarb; KBC

PRODUCT USE: fire extinguishing, pharmaceutical and healthcare, food and chemical processing

REVISION DATE: Oct 10 2007

2. HAZARDS IDENTIFICATION

OSHA REGULATORY STATUS: This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS CLASSIFICATION:
No classification assigned.

EMERGENCY OVERVIEW:
COLOR: white
PHYSICAL FORM: powder
ODOR: odorless
SIGNAL WORD: CAUTION
MAJOR HEALTH HAZARDS: MAY BE IRRITATING TO RESPIRATORY TRACT, SKIN, EYES, AND GASTROINTESTINAL TRACT.
PRECAUTIONARY STATEMENTS: Avoid breathing dust. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling.

POTENTIAL HEALTH EFFECTS:
INHALATION:
May cause irritation.
SKIN CONTACT:
May cause slight skin irritation.
EYE CONTACT:
May cause moderate eye irritation.
INGESTION:
To our knowledge, no effects are known.

CHRONIC EFFECTS:
To our knowledge, no effects are known.

CARCINOGEN STATUS:
OSHA: No
NTP: No
IARC: No

See Section 11: TOXICOLOGICAL INFORMATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT: POTASSIUM BICARBONATE
CAS NUMBER: 298-14-6
PERCENTAGE: 95-100

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. IF SYMPTOMS OF OVEREXPOSURE OCCUR, GET MEDICAL ATTENTION.

SKIN CONTACT: Wash contaminated areas with soap and water. Contaminated clothing should be

removed, then discarded or laundered. Discard footwear which cannot be decontaminated. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

EYE CONTACT: Flush with water. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

INGESTION: No hazard expected. IF LARGE AMOUNTS ARE INGESTED, GET MEDICAL ATTENTION.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard.

EXTINGUISHING MEDIA: Use extinguishing agents appropriate for surrounding fire.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SENSITIVITY TO MECHANICAL IMPACT: Not sensitive

SENSITIVITY TO STATIC DISCHARGE: Not sensitive

FLASH POINT: not flammable

6. ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:
Shovel dry material into suitable container. Flush spill area with water, if appropriate. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Material is very hygroscopic. Store in a cool, dry place. Keep separated from incompatible substances (see Section 10 of the MSDS).

HANDLING: Avoid breathing dust. Wash thoroughly after handling. When using, do not eat, drink or smoke. Do not reuse containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:
POTASSIUM BICARBONATE (ANHYDROUS ALL GRADES):
NUISANCE PARTICULATES (NUISANCE DUST):
5 mg/m3 OSHA TWA (respirable fraction)
15 mg/m3 OSHA TWA (total dust)
15 mppcf OSHA TWA (respirable fraction)
50 mppcf OSHA TWA (total dust)
10 mg/m3 ACGIH TWA (inhalable particulate)
3 mg/m3 ACGIH TWA (respirable particulate)

BIOLOGICAL LIMIT VALUES:
POTASSIUM BICARBONATE (ANHYDROUS ALL GRADES):
No biological limit value(s) available.

VENTILATION: Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear safety glasses with side shields.

CLOTHING: Wear protective clothing to minimize skin contact.

GLOVES: Wear suitable gloves.

PROTECTIVE MATERIAL TYPES: leather, neoprene, nitrile, rubber, Tyvek®

RESPIRATOR: A NIOSH approved respirator with N100 (HEPA) filters may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.
Observe limitations specified by NIOSH or the respirator manufacturer.
A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant the use of a respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: solid
COLOR: white
TEXTURE: granular
PHYSICAL FORM: powder
ODOR: odorless
MOLECULAR WEIGHT: 100.12
MOLECULAR FORMULA: $KHCO_3$
BOILING POINT: Not applicable
MELTING POINT: 212-392 F (100-200 C) (decomposes)
FLASH POINT: not flammable
DECOMPOSITION POINT: 212-392 F (100-200 C)

VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
SPECIFIC GRAVITY (water=1): 2.17
DENSITY: 68 lbs/ft3
WATER SOLUBILITY: 23% @ 20 C
PH: slightly basic in solution
VOLATILITY: Not applicable
ODOR THRESHOLD: Not applicable
EVAPORATION RATE: Not applicable
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable

10. STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid contact with lime to prevent formation of corrosive potassium hydroxide (KOH).

INCOMPATIBILITIES: acids

HAZARDOUS DECOMPOSITION:
Thermal decomposition products: oxides of carbon, oxides of potassium

POLYMERIZATION: Will not polymerize.

11. TOXICOLOGICAL INFORMATION

POTASSIUM BICARBONATE (ANHYDROUS ALL GRADES):
TOXICITY DATA: 2064 mg/kg oral-rat LD50; >2000 mg/kg skin-rabbit LD50
During an acute 4.5 hour inhalation LC50 test, no mortalities occurred at a concentration of 4880 mg/m3.
This material when applied to the skin of guinea pigs did not elicit any dermal sensitization reaction.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:
FISH TOXICITY: 1500 mg/L 96 hour(s) LC50 Bluegill sunfish (practically nontoxic); 1300 mg/L 96 hour(s) LC50 Rainbow trout (practically nontoxic);

INVERTEBRATE TOXICITY: 1200 mg/L 48 hour(s) EC50 Daphnia magna (practically nontoxic)

FATE AND TRANSPORT:

BIODEGRADATION: This material is inorganic and not subject to biodegradation.

PERSISTENCE: This material is believed not to persist in the environment.

BIOCONCENTRATION: This material is believed not to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Reuse or reprocess if possible. Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: Not regulated.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: Not regulated.

15. REGULATORY INFORMATION

U.S. REGULATIONS:
CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):
ACUTE: No
CHRONIC: No
FIRE: No
REACTIVE: No
SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:
California Proposition 65: Not regulated.

NEW JERSEY WORKER AND COMMUNITY RIGHT TO KNOW:
REPORTING REQUIREMENT:
POTASSIUM BICARBONATE 298-14-6 95-100%

RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST:
Not regulated.

SPECIAL HEALTH HAZARD SUBSTANCE LIST:
Not regulated.

PENNSYLVANIA RIGHT TO KNOW:
REPORTING REQUIREMENT:
POTASSIUM BICARBONATE 298-14-6 95-100%

HAZARDOUS SUBSTANCE LIST:
Not regulated.

ENVIRONMENTAL HAZARDOUS SUBSTANCE LIST:
Not regulated.

SPECIAL HAZARDOUS SUBSTANCE LIST:
Not regulated.

CANADIAN REGULATIONS:
WHMIS CLASSIFICATION: Not regulated.

NATIONAL INVENTORY STATUS:
U.S. INVENTORY (TSCA): All the components of this substance are listed on or are exempt from the inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CANADA INVENTORY (DSL/NDSL): All components of this product are listed on the DSL.

16. OTHER INFORMATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=0 REACTIVITY=0

HMIS RATINGS (SCALE 0-4): HEALTH=1 FLAMMABILITY=0 REACTIVITY=0

This information is intended solely for the use of individuals trained in the NFPA and/or HMIS systems. Rated using 2nd Edition HMIS Instructions.

MSDS SUMMARY OF CHANGES
2. HAZARDS IDENTIFICATION
3. COMPOSITION/INFORMATION ON INGREDIENTS
4. FIRST AID MEASURES

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
11. TOXICOLOGICAL INFORMATION
15. REGULATORY INFORMATION

Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Material Safety Data Sheet available to your employees.

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