Harcros Chemicals Inc
Kansas City, Kansas

MATERIAL SAFETY DATA SHEET Page 1

DUC NAME: POTASSIUM CARBONATE CALCINED
PRODUCT CODE: 06100

FORMULA: K₂CO₃
CHEM. FAMILY: inorganic salts
CHEMICAL NAME AND SYNONYMS:
Potash Carbonate;
Potassium Carbonate, Anhydrous, Hydrated;
Calcined Potassium Carbonate;
Pearl Ash;
Potash;
Potcarb;
Carbonic Acid, Dipotassium Salt;
MSDS 001169 DETAIL 00599
SUPPLIERS NAME: Harcros Chemicals Inc.
5200 Speaker Road
Kansas City KS 66106-1095
SUPPLIERS PHONE NUMBER: 913-321-3131
TRANSPORTATION EMERGENCY PHONE NUMBER: 1-800-424-9300

S.A.R.A. INFORMATION

HAZARDS: Acute Chronic
PHYSICAL DATA: Pure Solid

SECTION I HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>MAX %</th>
<th>SARA APPLIES</th>
<th>AIR CONTAMINENT LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAS Number</td>
<td>W/W</td>
<td>312</td>
</tr>
<tr>
<td>Potassium Carbonate</td>
<td>100.0</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Potash</td>
<td>(CAS #: 584-08-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION II HEALTH HAZARDS

POSSIBLE EFFECTS OF EXPOSURE
EYES
Eye contact with product may cause severe irritation
Prolonged or repeated eye contact may cause eye damage
SKIN
Skin contact may cause irritation

Continued On Page 2
SECTION II HEALTH HAZARDS

Prolonged or repeated skin contact may cause skin damage, dermatitis, tissue destruction.

INHALATION
Inhalation may cause irritation, lung damage, damage to respiratory system, chemical pneumonia.

INGESTION
Ingestion may cause severe irritation.

TARGET ORGANS
OVEREXPOSURE MAY CAUSE DAMAGE TO,
DISORDERS OF, OR ADVERSELY AFFECT THE FOLLOWING SYSTEMS, FUNCTIONS, ORGANS: none currently known.

FIRST AID

FIRST AID 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.

FIRST AID 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.

FIRST AID INHALATION
Remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. Call a physician.

FIRST AID 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. Call a physician immediately.

OTHER INFORMATION

ROUTES OF ENTRY
eye contact, skin contact, inhalation, ingestion.

OVEREXPOSURE MAY AGGRAVATE DISORDERS OF THE
skin, eyes, mucous membranes, respiratory system.

SECTION III SPECIAL PROTECTION

PROTECTIVE EQUIPMENT

PROTECTIVE EQUIPMENT EYES
chemical goggles. Always wear eye protection when working with chemicals. Do not wear contact lenses when working with chemicals.

PROTECTIVE EQUIPMENT SKIN
clean body covering clothing, impervious gloves.

PROTECTIVE EQUIPMENT INHALATION
If exposure limits are exceeded, or if exposure may occur, use a NIOSH/MSHA respirator approved for your conditions of exposure. Refer to the most recent NIOSH publications concerning chemical hazards, or consult your safety equipment supplier. Respiratory protection 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.

VENTILATION REQUIRED:
Adequate ventilation is required to minimize exposure or to maintain exposure levels below...
DUCT NAME: POTASSIUM CARBONATE CALCINED
PRODUCT CODE: 06100

DATE: 21-Mar-94
TIME: 15:03

SECTION III SPECIAL PROTECTION

OSHA/ACGIH requirements. Local mechanical ventilation may be required.
ADDITIONAL PROTECTIVE MEASURES
Safety shower, eye wash fountain, and washing facilities should be readily available.

SECTION IV FIRE & EXPLOSION HAZARD DATA

Flash Point (METHOD): N/A
Flammable Limits (% Volume in Air) UPPER: N/D Lower: N/D

HMIS Info
Health: 2
Fire: 0
React: 0
Special: X

EXTINGUISHING MEDIA
media appropriate for surrounding fire water spray dry chemical carbon dioxide

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
nervous protective clothing. Not considered a fire hazard.

SUDDEN FIRE & EXPLOSION HAZARDS
Dust can be an explosion hazard. Prevent buildup of dust on walls, floors, and equipment.

SECTION V PHYSICAL DATA

Boiling Point: N/D
Freezing Point: N/D
Specific Gravity (H(2)O=1): 2.4000 @ 68 deg. F
Vapor Pressure (MM HG.): N/D
Vapor Density (AIR=1): N/D
Evaporation Rate ( NA =1): N/D
Solubility in Water: 50%
Percent Volatile by Volume: N/D
pH: aqueous approx. 11.000
Appearance:
SOLID - POWDER, CRYSTAL, FLAKE, GRANULE
TABLET, PRILL, BRICUETTE, ETC.
Odor:
NII

SECTION VI REACTIVITY DATA

STABILITY

Continued On Page 4
SECTION VI REACTIVITY DATA

Stable

INCOMPATABILITY
inorganic bases

HAZARDOUS DECOMPOSITION PRODUCTS
carbon dioxide carbon monoxide

HAZARDOUS POLYMERIZATION
Will not occur

SECTION VII SPILL AND LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Evacuate non essential personnel, eliminate ignition sources, and wear protective equipment (See Section III). 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.

DISPOSAL METHOD
-ids must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated. Incineration must be handled in a permitted hazardous waste management facility. Dispose of material in accordance with all Federal, State and local regulations. Local regulations may be more stringent than Federal or State. Avoid discharge to sewers or waterways.

SECTION VIII

Proper Shipping Name: UNCLASSIFIED

Label Requirements: NONE

Reportable Quantity: None

SECTION IX ADDITIONAL INFORMATION

PRECAUTIONS
Wear protective equipment when handling. Use only with adequate ventilation. Wash thoroughly after handling. Do Not breathe dust. Do Not get in eyes, on skin, or clothing. Do not swallow

HANDLING
For industrial use only. ATTENTION: This container hazardous when emptied. Since emptied container contains product residues (vapor or liquid), all labeled hazard precautions must be observed.

STORAGE

Continued On Page 5
Keep container closed when not in use. Store in a cool dry place. Keep out of reach of children.

NAME: GENE TURNER

< = LESS THAN
> = MORE THAN
N/A = NOT APPLICABLE
N/D = NOT DETERMINED
N/E = NOT ESTABLISHED

The information provided in this Material Safety data sheet has been obtained from sources believed to be reliable. Harcros Chemicals Inc provides no warranties, either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. Harcros Chemicals Inc knows of no medical condition, other than those noted on this material safety data sheet, which are generally recognized as being aggravated by exposure to this product.